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RESEARCH MEMORANDUM

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THE RESULTS OF WIND-TUNNEL TESTS AT LOW SPEEDS OF A FOUR-
ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION

HAVING A WING WITH 40° OF SWEEPBACK

AND AN ASPECT RATIO OF 10

By George G. Edwards, Donald A. Buell,
and Jerald K. Dickson

Ames Aeronautical Laboratory
Moffett Field, Calif.

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NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

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RESEARCH MEMORANDUMTHE RESULTS OF WIND-TUNNEL TESTS AT LOW SPEEDS OF A FOUR-
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SUMMARY

A wind-tunnel investigation has been conducted to provide data for the study of the effects of operating propellers on the low-speed longitudinal characteristics of a four-engine tractor airplane configuration having a wing with 40° of sweepback and an aspect ratio of 10. A reflection-plane mounting was used and the semispan model represented the right-hand side of a complete hypothetical airplane. Single-rotation, right-hand propellers were operated at values of thrust coefficient ranging from 0 to 0.9 per propeller. The thrust was sufficient to simulate up to 10,000 horsepower per engine at sea level, assuming the model to be 1/12 scale. The tests were conducted at Mach numbers from 0.082 to 0.165 and Reynolds numbers of 4,000,000 to 8,000,000. Variations in the model included several heights and incidences of the horizontal tail as well as tail removed, two arrangements of extended split flaps, several propeller-blade angles, and independent as well as simultaneous operation of the inboard and outboard propellers.

The coefficients of lift, longitudinal force, pitching moment, propeller thrust, and propeller power are presented in tabular form for various values of advance ratio at constant angles of attack. Selected portions of the data are presented in plotted form for various constant thrust coefficients.

INTRODUCTION

The potentialities of the turbine-propeller propulsion system, particularly with regard to take-off and range characteristics of multiengine airplanes, have stimulated interest in the long-range turboprop airplane designed to fly at high subsonic speeds. A possible airplane configuration for this application appears to be one utilizing a sweptback wing of high aspect ratio in combination with tractor-mounted supersonic propellers. The effects of these highly loaded propellers on the flow over the swept wing and tail surfaces and the consequent effects on the longitudinal characteristics of the airplane cannot be estimated with confidence on the basis of existing experimental data or theoretical methods. Applicable experimental data are meager, and existing theoretical methods, developed for airplanes with low propeller-disc loadings and unswept wings, are of doubtful validity for the arrangement considered.

An investigation was undertaken in the Ames 12-foot pressure wind tunnel for the purpose of evaluating experimentally the effects of operating propellers on the longitudinal aerodynamic characteristics of a representative multiengine airplane configuration with a sweptback wing. The power-off longitudinal characteristics of several combinations of the components of this airplane configuration have been presented in references 1 to 4. The characteristics of the propeller are reported in reference 5. The results of power-on force tests of the complete configuration at low speeds are reported herein. Attention is directed to the fact that the Reynolds numbers of these tests were much higher than are usually attained in power-on tests of models, ranging from 4,000,000 to 8,000,000. The data are presented without analysis at this time to expedite publication.

NOTATION

- A upflow angle, average angle of local flow at the 0.7 propeller radius on the horizontal center line of the propeller plane, measured with respect to the thrust axis in a plane parallel to the plane of symmetry
- a mean-line designation, fraction of chord over which design load is uniform
- b/2 wing semispan perpendicular to the plane of symmetry
- b' propeller-blade width

- C_L lift coefficient, $\frac{\text{lift}}{qS}$
- C_m pitching-moment coefficient about the quarter point of the mean aerodynamic chord, $\frac{\text{pitching moment}}{qS\bar{c}}$
- C_P power coefficient per propeller, $\frac{P}{\rho n^3 D^5}$
- C_X longitudinal-force coefficient, $\frac{X}{qS}$
- c local wing chord parallel to the plane of symmetry
- c' local wing chord normal to the reference sweep line (see table I)
- $\bar{c}$ wing mean aerodynamic chord, $\frac{\int_0^{b/2} c^2 dy}{\int_0^{b/2} c dy}$
- c_{l_1} wing-section design lift coefficient
- D propeller diameter
- h maximum thickness of propeller-blade section
- hp horsepower
- i_t incidence of the horizontal tail with respect to the wing-root chord
- J propeller advance ratio, $\frac{V}{nD}$
- l_t tail length, distance between the quarter points of the mean aerodynamic chords of the wing and the horizontal tail, measured parallel to the plane of symmetry
- M free-stream Mach number
- n propeller rotational speed
- P shaft power per motor
- q free-stream dynamic pressure, $\frac{\rho V^2}{2}$

R	Reynolds number, based on wing mean aerodynamic chord
R'	propeller-tip radius
r	propeller-blade-section radius
S	area of the semispan wing, flaps off
T	thrust per propeller, parallel to stream
T_c	thrust coefficient per propeller, $\frac{T}{\rho V^2 D^2}$
t	wing-section thickness
V	free-stream velocity
X	longitudinal force, parallel to stream and positive in a dragwise direction
y	lateral distance from the plane of symmetry
α	angle of attack of the wing chord at the plane of symmetry (referred to herein as the wing-root chord)
β	propeller-blade angle, measured at 0.70 of the tip radius
β'	propeller-blade-section angle
δ	flap angle, measured relative to the local chord in planes normal to the reference sweep line
η	propeller efficiency
ρ	mass density of air
ϕ	angle of local wing chord relative to the wing-root chord, positive for washin, measured in planes parallel to the plane of symmetry

Subscripts

av	average
t	tail

MODEL AND APPARATUS

The model represented the right-hand half of a complete hypothetical airplane. The geometry of the model is given in figure 1 and in table I. The selection of the geometric properties and the details of the construction of the wing, nacelles, fences, all-movable tail, and fuselage have been discussed in references 1, 2, and 4.

The extended split flaps consisted of 1/8-inch-thick aluminum plates attached to the trailing edge of the wing. (See fig. 1(e).) The flaps were supported by fixed brackets from the lower surface of the wing and had a chord equal to 20 percent of the wing chord measured perpendicular to the reference sweep line. Two arrangements of flaps were used in the tests reported herein, as illustrated in figure 1(e). The arrangement designated "inboard flaps" is the same as that used in the investigation of reference 4, wherein the flaps extended from the fuselage to the outer nacelle. In the second arrangement of flaps, designated "outboard flaps," the flaps extended from the inboard nacelle to 70 percent of the semispan. The gaps between the flaps and the wing trailing edge, nacelles, and fuselage were sealed.

A photograph of the model mounted in the wind tunnel is shown in figure 2. The turntable upon which the model was mounted is directly connected to the balance system.

The propellers used in this investigation each had three blades and right-hand rotation; they were designated NACA 1.167-(0)(05)-058 (see fig. 3) and were the same propellers tested at low speeds in the investigation reported in reference 5. As explained in that reference, these propellers were identical to the NACA 1.167-(0)(03)-058 supersonic propeller except that the blade thicknesses were increased by a factor of five-thirds at all radial stations. These thicker blades were designed to withstand the high blade loadings accompanying low-speed operation in the wind tunnel at an air density corresponding to a pressure of 6 atmospheres.

In each nacelle, a variable-speed motor rated 75 horsepower at 18,000 rpm was coupled with a gearbox to drive the propeller at a rotational speed two-thirds that of the motor. The motor-gearbox combination and the means for measuring power and rotational speed were identical to those of the investigation reported in reference 5.

TESTS

Test Conditions and Procedure

The majority of the tests reported herein were made at a Mach number of 0.082, a Reynolds number of 4,000,000, and a propeller-blade angle β of 26° . The corresponding dynamic pressure q of the air stream was approximately 57 pounds per square foot. Other tests were made at Mach numbers of 0.082 to 0.165, Reynolds numbers of 4,000,000 to 8,000,000, and with propeller-blade angles from 21° to 36° . The angle-of-attack range was 2° to 18° . The model was tested both with and without the horizontal tail, flaps, and propellers. The height of the horizontal-tail hinge axis was either 0, 0.05, 0.10, or 0.15 of the wing semispan (see fig. 1(a)). The model was tested with the tail at various angles of incidence. Inboard flaps (fig. 1(e)) were attached at 30° and 60° angles of deflection δ and outboard flaps at 30° . At each angle of attack, Mach number and Reynolds number were held constant while data were obtained for several propeller rotational speeds from windmilling to the maximum attainable, the latter being limited by either the maximum power or the maximum rotational speed of the electric motor.

Propeller Calibration

The propeller was calibrated on a specially constructed calibration nacelle as described in reference 5. With this equipment the thrust characteristics of the propeller in the presence of the spinner and nacelle forebody were measured at several angles of attack for the range of test conditions covered in the tests of the complete model.

REDUCTION OF DATA

Thrust Coefficient

The thrust coefficient T_c used herein was determined from the propeller calibration at the same Mach number, Reynolds number, propeller-blade angle, advance ratio, and upflow angle A as for the complete model test. The upflow angle used was the average at the 0.7 propeller radius on the horizontal center line of the propeller plane, determined from the data in reference 6. Typical variations of thrust coefficient T_c with advance ratio J are shown in figure 4. Average values of T_c are presented for all cases in which both propellers were operating, since the differences were very small. It is estimated that

in the tests at the lowest dynamic pressure (57 lb/sq ft), the experimental error in T_c could amount to as much as 0.005 at low values of T_c , and 0.02 at high values, disregarding scatter. This is considered to be the accuracy of T_c for purposes of comparing data within the report.

The relationship between T_c and C_L shown in figure 5 is for the convenience of the reader who wishes to apply the data at a full-scale constant-power condition. The constant-power conditions shown are based on an assumed model scale of 1/12 and are representative of level flight at sea level for a 200,000-pound airplane with constant-speed propellers. Also shown in figure 5 are the variations of propeller efficiency and blade angle with velocity determined from the propeller calibration reported in reference 5. The 10,000 horsepower per engine is intended to be a typical take-off power, simulated by the thrusts available on the model at a test Mach number of 0.082 and a test Reynolds number of 4,000,000. The 7,000 horsepower is about the maximum that could be simulated with the model and equipment at high lifts at a Mach number of 0.123 and a Reynolds number of 4,000,000.

Force and Moment Coefficients

The basic data, obtained at various thrust coefficients at a constant angle of attack, were reduced to conventional form, that is, angle of attack, longitudinal-force coefficient, and pitching-moment coefficient as a function of lift coefficient for constant values of T_c , by means of cross plots.

Corrections

The data have been corrected by the method of reference 7 for the effects of tunnel-wall interference originating from the lift on the wing. These corrections were as follows (additive to measured values):

$$\Delta\alpha = 0.38 C_{L_w}$$

$$\Delta C_X = 0.0059 C_{L_w}^2$$

$$\Delta C_m = 0.0030 C_{L_w} \text{ (tail off)}$$

$$\Delta C_m = 0.0122 C_{L_w} \text{ (tail on)}$$

where $C_{L_w} = C_L - C_{L_p}$

and C_{Lp} is the lift coefficient due to propeller thrust and propeller normal force (obtained during the tests reported in ref. 5). The constants in the above expressions for correction to the pitching-moment coefficient were computed for power-off conditions. It is estimated that the error in C_m resulting from this assumption could amount to 0.004 at the highest thrust coefficients and the highest angles of attack when the tail is immersed in the slipstream.

The dynamic pressure was corrected for constriction effects due to the presence of the tunnel walls by the method of reference 8. The correction consisted of an increase in the measured dynamic pressure of from 0.2 to 0.3 percent, depending on the Mach number. The effect of wind-tunnel-wall constraint on the model-propeller slipstreams was evaluated by the method of reference 9 and was found to be negligible.

The longitudinal-force-coefficient tare resulting from the aerodynamic forces on the exposed portion of the turntable was 0.003. No attempt has been made to evaluate tares due to interference between the model and the turntable or to compensate for the tunnel-floor boundary layer, which had a displacement thickness of one-half inch at the turntable.

RESULTS

An index to the data is presented in table II. The basic, unfaired data are tabulated in tables III through XIV. The coefficients of lift, longitudinal force, and pitching moment, plotted in conventional form for constant values of T_c , are shown for selected configurations and test conditions in figures 6 through 40.

Ames Aeronautical Laboratory
National Advisory Committee for Aeronautics
Moffett Field, Calif., Sept. 28, 1953

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TABLE I.- GEOMETRIC PROPERTIES OF THE MODEL

Wing	
Reference sweep line: Locus of the quarter chords of sections inclined 40° to the plane of symmetry	
Aspect ratio (full-span wing)	10.0
Taper ratio	0.4
Sweepback	40°
Twist	-5°
Reference sections (normal to reference sweep line)	
Root NACA 0014, $a = 0.8$ (modified) $c_{l_i} = 0.4$	
Tip NACA 0011, $a = 0.8$ (modified) $c_{l_i} = 0.4$	
Area (semispan model)	6.944 ft ²
Mean aerodynamic chord	1.251 ft
Flaps, extended from trailing edge	0.20 c'
Incidence (measured in the plane of symmetry)	3°
Fences are located at $y/b/2 = 0.33, 0.50, 0.70$, and 0.85 .	
Nacelles	
Frontal area (each)	0.208 ft ²
Inclination,	
Inboard	-6.5°
Outboard	-7.0°
Propellers	
Diameter	1.167 ft
Number of blades	3
Propeller-activity factor (per blade)	188.4
Propeller-blade thickness-chord ratio (0.70 radius)	0.05
Solidity (per blade)	0.058
Blade sections	symmetrical NACA 16 series
Horizontal Tail	
Reference sweep line: Locus of quarter chords of sections inclined 40° to the plane of symmetry	
Aspect ratio (full-span tail)	4.5
Taper ratio	0.4
Sweepback	40°

TABLE I.- GEOMETRIC PROPERTIES OF THE MODEL - Concluded

Horizontal Tail (Continued)

Reference section (normal to reference sweep line)	NACA 0010
Tail length, l_t	3.25 $\bar{c}$
Area (semispan model).	1.387 ft ²
Mean aerodynamic chord	0.833 ft
Tail volume, $l_t/\bar{c}$ (S_t/S)	0.65
Tail heights (measured vertically from the fuselage center line to the hinge axis of the horizontal tail in wing semispans (see fig. 1(a))	
	0, 0.05, 0.10, 0.15

Fuselage

Fineness ratio	12.6
Frontal area (semispan model).	0.273 ft ²
Fuselage coordinates:	

<u>Distance from</u> <u>nose, in.</u>	<u>Radius,</u> <u>in.</u>
0	0
1.27	1.04
2.54	1.57
5.08	2.35
10.16	3.36
20.31	4.44
30.47	4.90
39.44	5.00
50.00	5.00
60.00	5.00
70.00	5.00
76.00	4.96
82.00	4.83
88.00	4.61
94.00	4.27
100.00	3.77
106.00	3.03
126.00	0

TABLE II.- INDEX OF TABLES AND FIGURES PRESENTING THE AERODYNAMIC DATA

Table No.	Figure No.	Tail height	Type flaps	δ , deg	M	R million	β , deg	it, deg	Table No.	Figure No.	Tail height	Type flaps	δ , deg	M	R million	β , deg	it, deg
III (a)	6	tail off	none	---	0.082	4	21	---	VII	25	0.15 b/2	none	---	0.123	4	31	-4
(b) ¹	7			---	.082	4	26	---	VIII (a)	26	tail off	Inbd.	30	.082	4	26	---
(c) ²	8			---	.082	4	26	---	(b) ¹	27				.082	4	26	---
(d)	9			---	.082	4	31	---	(c) ²	28				.082	4	31	---
(e)	10			---	.123	4	21	---	(d)					.082	4	31	---
(f)	11			---	.123	4	31	---	(e)					.123	4	31	---
(g)	12			---	.123	4	36	---	IX (a)	29	0	Inbd.	30	.082	4	26	0
(h)	13			---	.123	6	31	---	(b)	30				.082	4	26	-2
(i)	14			---	.165	8	31	---	(c)	31				.082	4	26	-4
(j)	15			---	.165	8	36	---	X (a)	32	0.10 b/2	Inbd.	30	.082	4	26	0
(k)	16			---	.082	4	26	0	(b) ¹	33				.082	4	26	0
IV (a)	17		none	---	.082	4	26	-4	(c) ²	34				.082	4	26	0
(b)	18			---	.123	4	31	-4	(d)	35				.082	4	26	-2
(c)				---	.123	4	31	-4	(e)	36				.082	4	26	-4
(d)				---	.082	4	21	-4	XI	37	tail off	Outbd.	30	.082	4	26	---
V (a)		0.05 b/2	none	---	.082	4	31	-4	XII (a)	38	0.10 b/2	Outbd.	30	.082	4	26	0
(b)				---	.123	4	31	-4	(b) ¹	39				.082	4	26	0
(c)				---	.123	4	31	-4	(c) ²					.082	4	26	-8
(d)				---	.165	8	31	-4	(d)	40	tail off	Inbd.	60	.082	4	26	---
(e)				---	.165	8	36	-4	XIII (a)					.082	4	31	---
(f)				---	.082	4	26	-4	(b)					.082	4	31	---
(g)				---	.082	4	26	-4	(c)					.123	4	31	---
(h)				---	.082	4	26	-4	XIV		0.10 b/2	Inbd.	60	.082	4	26	0
(i)				---	.123	4	26	-4									
(j)				---	.123	4	31	0									
(k)				---	.123	4	31	-4									

¹Inboard propeller only.²Outboard propeller only.³Negative thrust.

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TABLE III.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; FLAPS UP

(a) $M = 0.082$; $R = 4,000,000$; $\beta = 21^\circ$

α	C_L	C_D	C_m	T_{cav}	J_{av}	C_{pav}	α	C_L	C_D	C_m	T_{cav}	J_{av}	C_{pav}
2.04	0.147	0.014	-0.031	-0.004	0.099	0.004	8.16	0.625	0.088	-0.003	-0.006	0.860	0.003
2.03	0.136	0.027	-0.034	-0.004	0.099	0.004	8.15	0.622	0.088	-0.003	-0.006	0.860	0.003
2.02	0.125	0.040	-0.037	-0.004	0.099	0.004	8.14	0.619	0.088	-0.003	-0.006	0.860	0.003
2.01	0.114	0.053	-0.040	-0.004	0.099	0.004	8.13	0.616	0.088	-0.003	-0.006	0.860	0.003
2.00	0.103	0.066	-0.043	-0.004	0.099	0.004	8.12	0.613	0.088	-0.003	-0.006	0.860	0.003
1.99	0.092	0.079	-0.046	-0.004	0.099	0.004	8.11	0.610	0.088	-0.003	-0.006	0.860	0.003
1.98	0.081	0.092	-0.049	-0.004	0.099	0.004	8.10	0.607	0.088	-0.003	-0.006	0.860	0.003
1.97	0.070	0.105	-0.052	-0.004	0.099	0.004	8.09	0.604	0.088	-0.003	-0.006	0.860	0.003
1.96	0.059	0.118	-0.055	-0.004	0.099	0.004	8.08	0.601	0.088	-0.003	-0.006	0.860	0.003
1.95	0.048	0.131	-0.058	-0.004	0.099	0.004	8.07	0.598	0.088	-0.003	-0.006	0.860	0.003
1.94	0.037	0.144	-0.061	-0.004	0.099	0.004	8.06	0.595	0.088	-0.003	-0.006	0.860	0.003
1.93	0.026	0.157	-0.064	-0.004	0.099	0.004	8.05	0.592	0.088	-0.003	-0.006	0.860	0.003
1.92	0.015	0.170	-0.067	-0.004	0.099	0.004	8.04	0.589	0.088	-0.003	-0.006	0.860	0.003
1.91	0.004	0.183	-0.070	-0.004	0.099	0.004	8.03	0.586	0.088	-0.003	-0.006	0.860	0.003
1.90	-0.007	0.196	-0.073	-0.004	0.099	0.004	8.02	0.583	0.088	-0.003	-0.006	0.860	0.003
1.89	-0.018	0.209	-0.076	-0.004	0.099	0.004	8.01	0.580	0.088	-0.003	-0.006	0.860	0.003
1.88	-0.029	0.222	-0.079	-0.004	0.099	0.004	8.00	0.577	0.088	-0.003	-0.006	0.860	0.003
1.87	-0.040	0.235	-0.082	-0.004	0.099	0.004	7.99	0.574	0.088	-0.003	-0.006	0.860	0.003
1.86	-0.051	0.248	-0.085	-0.004	0.099	0.004	7.98	0.571	0.088	-0.003	-0.006	0.860	0.003
1.85	-0.062	0.261	-0.088	-0.004	0.099	0.004	7.97	0.568	0.088	-0.003	-0.006	0.860	0.003
1.84	-0.073	0.274	-0.091	-0.004	0.099	0.004	7.96	0.565	0.088	-0.003	-0.006	0.860	0.003
1.83	-0.084	0.287	-0.094	-0.004	0.099	0.004	7.95	0.562	0.088	-0.003	-0.006	0.860	0.003
1.82	-0.095	0.300	-0.097	-0.004	0.099	0.004	7.94	0.559	0.088	-0.003	-0.006	0.860	0.003
1.81	-0.106	0.313	-0.100	-0.004	0.099	0.004	7.93	0.556	0.088	-0.003	-0.006	0.860	0.003
1.80	-0.117	0.326	-0.103	-0.004	0.099	0.004	7.92	0.553	0.088	-0.003	-0.006	0.860	0.003
1.79	-0.128	0.339	-0.106	-0.004	0.099	0.004	7.91	0.550	0.088	-0.003	-0.006	0.860	0.003
1.78	-0.139	0.352	-0.109	-0.004	0.099	0.004	7.90	0.547	0.088	-0.003	-0.006	0.860	0.003
1.77	-0.150	0.365	-0.112	-0.004	0.099	0.004	7.89	0.544	0.088	-0.003	-0.006	0.860	0.003
1.76	-0.161	0.378	-0.115	-0.004	0.099	0.004	7.88	0.541	0.088	-0.003	-0.006	0.860	0.003
1.75	-0.172	0.391	-0.118	-0.004	0.099	0.004	7.87	0.538	0.088	-0.003	-0.006	0.860	0.003
1.74	-0.183	0.404	-0.121	-0.004	0.099	0.004	7.86	0.535	0.088	-0.003	-0.006	0.860	0.003
1.73	-0.194	0.417	-0.124	-0.004	0.099	0.004	7.85	0.532	0.088	-0.003	-0.006	0.860	0.003
1.72	-0.205	0.430	-0.127	-0.004	0.099	0.004	7.84	0.529	0.088	-0.003	-0.006	0.860	0.003
1.71	-0.216	0.443	-0.130	-0.004	0.099	0.004	7.83	0.526	0.088	-0.003	-0.006	0.860	0.003
1.70	-0.227	0.456	-0.133	-0.004	0.099	0.004	7.82	0.523	0.088	-0.003	-0.006	0.860	0.003
1.69	-0.238	0.469	-0.136	-0.004	0.099	0.004	7.81	0.520	0.088	-0.003	-0.006	0.860	0.003
1.68	-0.249	0.482	-0.139	-0.004	0.099	0.004	7.80	0.517	0.088	-0.003	-0.006	0.860	0.003
1.67	-0.260	0.495	-0.142	-0.004	0.099	0.004	7.79	0.514	0.088	-0.003	-0.006	0.860	0.003
1.66	-0.271	0.508	-0.145	-0.004	0.099	0.004	7.78	0.511	0.088	-0.003	-0.006	0.860	0.003
1.65	-0.282	0.521	-0.148	-0.004	0.099	0.004	7.77	0.508	0.088	-0.003	-0.006	0.860	0.003
1.64	-0.293	0.534	-0.151	-0.004	0.099	0.004	7.76	0.505	0.088	-0.003	-0.006	0.860	0.003
1.63	-0.304	0.547	-0.154	-0.004	0.099	0.004	7.75	0.502	0.088	-0.003	-0.006	0.860	0.003
1.62	-0.315	0.560	-0.157	-0.004	0.099	0.004	7.74	0.499	0.088	-0.003	-0.006	0.860	0.003
1.61	-0.326	0.573	-0.160	-0.004	0.099	0.004	7.73	0.496	0.088	-0.003	-0.006	0.860	0.003
1.60	-0.337	0.586	-0.163	-0.004	0.099	0.004	7.72	0.493	0.088	-0.003	-0.006	0.860	0.003
1.59	-0.348	0.599	-0.166	-0.004	0.099	0.004	7.71	0.490	0.088	-0.003	-0.006	0.860	0.003
1.58	-0.359	0.612	-0.169	-0.004	0.099	0.004	7.70	0.487	0.088	-0.003	-0.006	0.860	0.003
1.57	-0.370	0.625	-0.172	-0.004	0.099	0.004	7.69	0.484	0.088	-0.003	-0.006	0.860	0.003
1.56	-0.381	0.638	-0.175	-0.004	0.099	0.004	7.68	0.481	0.088	-0.003	-0.006	0.860	0.003
1.55	-0.392	0.651	-0.178	-0.004	0.099	0.004	7.67	0.478	0.088	-0.003	-0.006	0.860	0.003
1.54	-0.403	0.664	-0.181	-0.004	0.099	0.004	7.66	0.475	0.088	-0.003	-0.006	0.860	0.003
1.53	-0.414	0.677	-0.184	-0.004	0.099	0.004	7.65	0.472	0.088	-0.003	-0.006	0.860	0.003
1.52	-0.425	0.690	-0.187	-0.004	0.099	0.004	7.64	0.469	0.088	-0.003	-0.006	0.860	0.003
1.51	-0.436	0.703	-0.190	-0.004	0.099	0.004	7.63	0.466	0.088	-0.003	-0.006	0.860	0.003
1.50	-0.447	0.716	-0.193	-0.004	0.099	0.004	7.62	0.463	0.088	-0.003	-0.006	0.860	0.003
1.49	-0.458	0.729	-0.196	-0.004	0.099	0.004	7.61	0.460	0.088	-0.003	-0.006	0.860	0.003
1.48	-0.469	0.742	-0.199	-0.004	0.099	0.004	7.60	0.457	0.088	-0.003	-0.006	0.860	0.003
1.47	-0.480	0.755	-0.202	-0.004	0.099	0.004	7.59	0.454	0.088	-0.003	-0.006	0.860	0.003
1.46	-0.491	0.768	-0.205	-0.004	0.099	0.004	7.58	0.451	0.088	-0.003	-0.006	0.860	0.003
1.45	-0.502	0.781	-0.208	-0.004	0.099	0.004	7.57	0.448	0.088	-0.003	-0.006	0.860	0.003
1.44	-0.513	0.794	-0.211	-0.004	0.099	0.004	7.56	0.445	0.088	-0.003	-0.006	0.860	0.003
1.43	-0.524	0.807	-0.214	-0.004	0.099	0.004	7.55	0.442	0.088	-0.003	-0.006	0.860	0.003
1.42	-0.535	0.820	-0.217	-0.004	0.099	0.004	7.54	0.439	0.088	-0.003	-0.006	0.860	0.003
1.41	-0.546	0.833	-0.220	-0.004	0.099	0.004	7.53	0.436	0.088	-0.003	-0.006	0.860	0.003
1.40	-0.557	0.846	-0.223	-0.004	0.099	0.004	7.52	0.433	0.088	-0.003	-0.006	0.860	0.003
1.39	-0.568	0.859	-0.226	-0.004	0.099	0.004	7.51	0.430	0.088	-0.003	-0.006	0.860	0.003
1.38	-0.579	0.872	-0.229	-0.004	0.099	0.004	7.50	0.427	0.088	-0.003	-0.006	0.860	0.003
1.37	-0.590	0.885	-0.232	-0.004	0.099	0.004	7.49	0.424	0.088	-0.003	-0.006	0.860	0.003
1.36	-0.601	0.898	-0.235	-0.004	0.099	0.004	7.48	0.421	0.088	-0.003	-0.006	0.860	0.003
1.35	-0.612	0.911	-0.238	-0.004	0.099	0.004	7.47	0.418	0.088	-0.003	-0.006	0.860	0.003
1.34	-0.623	0.924	-0.241	-0.004	0.099	0.004	7.46	0.415	0.088	-0.003	-0.006	0.860	0.003
1.33	-0.634	0.937	-0.244	-0.004	0.099	0.004	7.45	0.412	0.088	-0.003	-0.006	0.860	0.003
1.32	-0.645	0.950	-0.247	-0.004	0.099	0.004	7.44	0.409	0.088	-0.003	-0.006	0.860	0.003
1.31	-0.656	0.963	-0.250	-0.004	0.099	0.004	7.43	0.406	0.088	-0.003	-0.006	0.860	0.003
1.30	-0.667	0.976	-0.253	-0.004	0.099	0.004	7.42	0.403	0.088	-0.003	-0.006	0.860	0.003
1.29	-0.678	0.989	-0.256	-0.004	0.099	0.004	7.41	0.400	0.088	-0.003	-0.006	0.860	0.003
1.28	-0.689	1.002	-0.259	-0.004	0.099	0.004	7.40	0.397	0.088	-0.003	-0.006	0.860	0.003
1.27	-0.700	1.015	-0.262	-0.004	0.099	0.004	7.39	0.394	0.088	-0.003	-0.006	0.860	0.003
1.26	-0.711	1.028	-0.265	-0.004	0.099	0.004	7.38	0.391	0.088	-0.003	-0.006	0.860	0.003
1.25	-0.722	1.041	-0.268	-0.004	0.099	0.004	7.37	0.388	0.088	-0.003	-0.006	0.860	0.003
1.24	-0.733	1.054	-0.271	-0.004	0.099	0.004	7.36	0.385	0.088	-0.003	-0.006	0.860	0.003
1.23	-0.744	1.067	-0.274	-0.004	0.099	0.004	7.35	0.382	0.088	-0.003	-0.006	0.860	0.003
1.22	-0.755	1.080	-0.277	-0.004	0.099	0.004	7.34	0.379	0.088	-0.003	-0.006	0.860	0.003
1.21	-0.766	1.093	-0.280	-0.004	0.099	0.004	7.33	0.					

TABLE III.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; FLAPS UP -- Continued

(c) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; Inboard propeller only

(c) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; Inboard propeller only

[illegible]

propellers removed	
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(d) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; Outboard propeller only

α	C_L	ϕ_x	C_m	T_c	C_p	α	C_L	ϕ_x	C_m	T_c	C_p	α	C_L	ϕ_x	C_m	T_c	β	C_p
2.03	0.137	0.015	-0.031	-0.001	-0.066	9.16	0.624	0.068	-0.095	0.001	-0.063	14.27	0.077	0.046	0.026	-0.001	-0.063	0.013
2.03	0.131	0.004	-0.082	-0.056	0.82	8.16	0.641	-0.09	-0.004	0.021	0.053	14.27	0.077	0.046	0.026	-0.001	-0.063	0.013
2.03	0.125	0.028	-0.068	-0.046	0.82	8.16	0.641	-0.09	-0.004	0.021	0.053	14.27	0.077	0.046	0.026	-0.001	-0.063	0.013
2.02	0.119	0.013	-0.063	-0.059	0.82	8.16	0.640	-0.048	-0.009	0.195	0.730	14.28	0.139	0.128	0.139	-0.009	-0.043	0.113
2.01	0.112	0.016	-0.068	-0.065	0.82	8.16	0.637	-0.101	-0.020	0.325	0.634	14.28	0.148	0.166	0.166	-0.093	-0.043	0.140
2.01	0.106	0.026	-0.063	-0.065	0.82	8.16	0.637	-0.101	-0.020	0.325	0.634	14.28	0.148	0.166	0.166	-0.093	-0.043	0.140
2.00	0.094	0.030	-0.054	-0.061	0.82	8.17	0.630	-0.304	-0.098	0.692	0.493	14.30	0.146	0.146	0.146	-0.290	-0.063	0.187
1.98	0.085	0.017	-0.030	-0.021	0.099	10.19	0.773	0.038	0.002	-	-	16.30	0.167	0.167	0.167	-0.097	-	-
1.98	0.083	0.017	-0.030	-0.021	0.099	10.19	0.773	0.038	0.002	-	-	16.30	0.167	0.167	0.167	-0.097	-	-
1.97	0.084	0.001	-0.023	-0.047	0.93	10.19	0.786	0.038	0.002	-0.049	0.588	16.30	0.139	0.139	0.139	-0.093	0.061	0.061
1.97	0.077	0.006	-0.023	-0.047	0.93	10.19	0.786	0.038	0.002	-0.049	0.588	16.30	0.139	0.139	0.139	-0.093	0.061	0.061
1.97	0.073	0.009	-0.020	-0.032	0.97	10.20	0.82	0.037	0.018	0.190	0.734	16.31	0.153	0.153	0.153	-0.092	0.108	0.116
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
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1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.137	0.137	0.137	-0.034	0.636	0.141
1.97	0.069	0.011	0.007	-0.039	0.96	10.20	0.831	0.038	0.018	0.329	0.636	16.33	0.13					

³Propellera removed

NACA

TABLE III.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; FLAPS UP -- Continued

(e) $M = 0.082$; $R = 4,000,000$; $\beta = 31^\circ$

propellers removed

(f) $M = 0.123$; $R = 4,000,000$; $\beta = 21^\circ$

propellers removed



TABLE III. -- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; FLAPS UP -- Continued

(g) $M = 0.123$; $R = 4,000,000$; $\beta = 31^\circ$

[illegible]

a. Propellers removed

(h) $M = 0.123$; $R = 4,000,000$; $\beta = 360$

[illegible]

Propellers removed

NACA

TABLE III.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; FLAPS UP - Continued

(i) $M = 0.123$; $R = 6,000,000$; $\beta = 31^\circ$

α	C_L	C_X	C_m	T_{cav}	J_{av}	C_{Pav}	α	C_L	C_X	C_m	T_{cav}	J_{av}	C_{Pav}
2.03	0.142	0.015	-0.034	-0.007	1.349	-0.006	8.15	0.624	0.028	-0.015	-0.006	1.347	-0.003
2.04	0.137	0.020	-0.044	-0.007	1.349	-0.006	8.15	0.624	0.028	-0.015	-0.006	1.347	-0.003
2.04	0.136	0.008	-0.038	-0.008	1.262	-0.009	8.16	0.609	0.020	-0.004	-0.012	1.251	-0.003
2.04	0.130	-0.014	-0.030	-0.037	1.149	-0.070	8.15	0.640	0.001	-0.008	0.037	1.154	-0.045
2.04	0.130	-0.045	-0.045	-0.076	1.045	-0.111	8.16	0.654	-0.026	-0.020	0.074	1.092	-0.084
2.03	0.124	-0.081	-0.013	-0.124	0.953	-0.144	8.17	0.671	-0.070	-0.037	0.130	0.946	-0.117
2.03	0.116	-0.141	-0.001	-0.200	0.890	-0.182	8.17	0.689	-0.123	-0.056	0.199	0.853	-0.154
2.03	0.104	-0.231	0.019	-0.311	0.748	-0.220	8.17	0.710	-0.210	-0.082	0.310	0.750	-0.189
4.08	0.309	0.017	-0.029	-0.008	1.373	-0.018	10.19	0.776	0.037	-0.005	-0.008	1.395	-0.006
4.07	0.304	0.066	-0.033	-0.008	1.264	-0.026	10.18	0.771	0.044	-0.002	-0.008	1.244	-0.006
4.08	0.306	0.010	-0.027	-0.010	1.151	-0.068	10.19	0.800	0.027	-0.014	-0.013	1.147	-0.092
4.08	0.308	-0.010	-0.019	-0.038	1.048	-0.105	10.20	0.822	-0.018	-0.039	0.075	1.050	-0.092
4.08	0.311	-0.030	-0.008	-0.076	0.951	-0.143	10.21	0.844	-0.055	-0.052	0.124	0.952	-0.123
4.08	0.310	-0.060	0.003	-0.127	0.851	-0.182	10.21	0.872	-0.115	-0.076	0.200	0.849	-0.160
4.08	0.309	-0.139	0.017	-0.202	0.750	-0.220	10.22	0.906	-0.200	-0.107	0.311	0.749	-0.193
6.12	0.472	0.021	-0.018	-0.005	1.347	-0.005	12.23	0.925	0.047	-0.007	-0.007	1.361	-0.029
6.12	0.466	0.027	-0.022	-0.005	1.245	-0.036	12.23	0.939	0.039	-0.008	-0.013	1.247	-0.071
6.12	0.470	0.012	-0.014	-0.014	1.147	-0.070	12.23	0.962	0.018	-0.040	0.041	1.147	-0.105
6.12	0.476	-0.007	-0.007	-0.040	1.052	-0.107	12.24	0.981	-0.005	-0.055	0.074	1.054	-0.139
6.12	0.484	-0.035	0.006	-0.075	0.945	-0.132	12.25	1.021	-0.045	-0.055	0.127	0.949	-0.173
6.13	0.493	-0.077	0.018	-0.132	0.853	-0.181	12.26	1.058	-0.103	-0.100	0.204	0.845	-0.204
6.13	0.500	-0.131	0.037	-0.201	0.753	-0.220	12.26	1.098	-0.180	-0.131	0.305	0.752	-0.233

*Propellers removed

(j) $M = 0.165$; $R = 8,000,000$; $\beta = 31^\circ$

α	C_L	C_X	C_m	T_{cav}	J_{av}	C_{Pav}	α	C_L	C_X	C_m	T_{cav}	J_{av}	C_{Pav}
2.03	0.138	0.015	-0.033	-0.007	1.399	-0.003	8.15	0.617	0.028	-0.014	-0.006	1.394	-0.001
2.04	0.134	0.007	-0.040	-0.008	1.267	-0.035	8.15	0.622	0.019	-0.006	-0.012	1.253	-0.037
2.04	0.130	-0.014	-0.033	-0.036	1.157	-0.075	8.15	0.650	0.001	-0.003	0.038	1.155	-0.079
2.04	0.127	-0.043	-0.025	-0.073	1.057	-0.113	8.16	0.645	-0.027	-0.017	0.078	1.050	-0.116
2.03	0.123	-0.083	-0.014	-0.124	0.959	-0.151	8.16	0.662	-0.077	-0.033	0.122	0.964	-0.153
2.03	0.118	-0.120	-0.006	-0.171	0.893	-0.179	8.17	0.674	-0.103	-0.047	0.176	0.890	-0.174
4.07	0.301	0.017	-0.031	-0.007	1.348	-0.009	10.19	0.771	0.036	-0.002	-0.004	1.352	-0.008
4.07	0.301	0.022	-0.035	-0.004	1.249	-0.033	10.18	0.771	0.041	-0.003	-0.004	1.249	-0.088
4.07	0.301	0.007	-0.028	-0.013	1.149	-0.070	10.19	0.800	0.028	-0.022	-0.013	1.153	-0.106
4.07	0.304	-0.012	-0.021	-0.040	1.056	-0.106	10.20	0.818	-0.019	-0.033	0.074	1.054	-0.122
4.08	0.305	-0.039	-0.013	-0.076	0.957	-0.145	10.21	0.841	-0.059	-0.051	0.129	0.952	-0.157
4.08	0.306	-0.079	-0.011	-0.128	0.851	-0.185	10.21	0.860	-0.095	-0.066	0.174	0.850	-0.176
4.08	0.307	-0.119	-0.010	-0.161	0.807	-0.213	10.21	0.880	-0.095	-0.082	0.261	0.807	-0.204
6.11	0.464	0.021	-0.023	-0.005	1.354	-0.011	12.23	0.918	0.046	-0.005	-0.005	1.343	-0.002
6.11	0.460	0.027	-0.025	-0.005	1.258	-0.031	12.22	0.920	0.037	-0.016	-0.001	1.243	-0.056
6.12	0.465	0.013	-0.015	-0.013	1.158	-0.071	12.23	0.934	0.018	-0.047	0.075	1.157	-0.091
6.12	0.477	-0.003	-0.016	-0.038	1.057	-0.104	12.23	0.962	-0.009	-0.055	0.129	1.054	-0.124
6.12	0.487	-0.033	0.003	-0.131	0.953	-0.146	12.24	0.981	-0.041	-0.069	0.202	0.951	-0.158
6.13	0.497	-0.066	0.017	-0.166	0.858	-0.181	12.25	1.004	-0.091	-0.083	0.271	0.854	-0.186
6.13	0.493	-0.112	-0.028	-0.208	0.768	-0.212	12.25	1.034	-0.078	-0.103	0.305	0.768	-0.212

*Propellers removed

NACA

TABLE III.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; FLAPS UP -- Concluded

(k) $M = 0.165$; $R = 8,000,000$; $\beta = 36^\circ$

α	C_L	C_X	C_m	T_{cav}	J_{av}	$C_{p_{av}}$	α	C_L	C_X	C_m	T_{cav}	J_{av}	$C_{p_{av}}$	α	C_L	C_X	C_m	T_{cav}	J_{av}	$C_{p_{av}}$
2.03	0.138	0.015	-0.033	-0.006	1.694	-0.005	8.15	0.617	0.028	-0.014	-0.007	1.666	-0.008	14.26	1.062	0.099	0.014	-0.008	1.673	-
2.03	0.132	0.018	-0.043	-0.004	1.759	-0.002	8.15	0.615	0.030	-0.022	-0.003	1.712	-0.038	14.26	1.081	0.092	0.040	-0.005	1.758	0
2.03	0.127	0.026	-0.057	-0.001	1.829	0.001	8.15	0.613	0.032	-0.034	-0.001	1.778	-0.071	14.26	1.097	0.085	0.071	-0.002	1.829	0.061
2.03	0.121	0.034	-0.071	0.002	1.900	0.004	8.15	0.611	0.034	-0.046	0.006	1.848	-0.109	14.26	1.113	0.077	0.101	0.006	1.900	0.171
2.03	0.115	0.042	-0.085	0.005	1.971	0.007	8.15	0.609	0.036	-0.058	0.012	1.918	-0.147	14.26	1.129	0.069	0.131	0.019	1.971	0.284
2.03	0.109	0.050	-0.100	0.008	2.042	0.010	8.15	0.607	0.038	-0.070	0.015	1.986	-0.185	14.26	1.145	0.061	0.156	0.032	2.042	0.397
2.03	0.103	0.058	-0.114	0.011	2.113	0.013	8.15	0.605	0.040	-0.082	0.018	2.054	-0.223	14.26	1.161	0.053	0.181	0.045	2.113	0.510
2.03	0.097	0.066	-0.128	0.014	2.184	0.016	8.15	0.603	0.042	-0.094	0.021	2.125	-0.261	14.26	1.177	0.045	0.206	0.058	2.184	0.623
2.03	0.091	0.074	-0.142	0.017	2.255	0.019	8.15	0.601	0.044	-0.106	0.024	2.196	-0.299	14.26	1.193	0.037	0.231	0.071	2.255	0.736
2.03	0.085	0.082	-0.156	0.020	2.326	0.022	8.15	0.599	0.046	-0.118	0.027	2.267	-0.337	14.26	1.209	0.029	0.256	0.084	2.326	0.849
2.03	0.079	0.090	-0.170	0.023	2.397	0.025	8.15	0.597	0.048	-0.130	0.030	2.338	-0.375	14.26	1.225	0.021	0.281	0.097	2.397	0.962
2.03	0.073	0.098	-0.184	0.026	2.468	0.028	8.15	0.595	0.050	-0.142	0.033	2.409	-0.413	14.26	1.241	0.013	0.306	0.110	2.468	1.075
2.03	0.067	0.106	-0.198	0.029	2.539	0.031	8.15	0.593	0.052	-0.154	0.036	2.480	-0.451	14.26	1.257	0.005	0.331	0.123	2.539	1.188
2.03	0.061	0.114	-0.212	0.032	2.610	0.034	8.15	0.591	0.054	-0.166	0.039	2.551	-0.489	14.26	1.273	0.000	0.356	0.136	2.610	1.301
2.03	0.055	0.122	-0.226	0.035	2.681	0.037	8.15	0.589	0.056	-0.178	0.042	2.622	-0.527	14.26	1.289	0.000	0.381	0.149	2.681	1.414
2.03	0.049	0.130	-0.240	0.038	2.752	0.040	8.15	0.587	0.058	-0.190	0.045	2.693	-0.565	14.26	1.305	0.000	0.406	0.162	2.752	1.527
2.03	0.043	0.138	-0.254	0.041	2.823	0.043	8.15	0.585	0.060	-0.202	0.048	2.764	-0.603	14.26	1.321	0.000	0.431	0.175	2.823	1.640
2.03	0.037	0.146	-0.268	0.044	2.894	0.046	8.15	0.583	0.062	-0.214	0.051	2.835	-0.641	14.26	1.337	0.000	0.456	0.188	2.894	1.753
2.03	0.031	0.154	-0.282	0.047	2.965	0.049	8.15	0.581	0.064	-0.226	0.054	2.906	-0.679	14.26	1.353	0.000	0.481	0.201	2.965	1.866
2.03	0.025	0.162	-0.296	0.050	3.036	0.052	8.15	0.579	0.066	-0.238	0.057	3.017	-0.717	14.26	1.369	0.000	0.506	0.214	3.036	1.979
2.03	0.019	0.170	-0.310	0.053	3.107	0.055	8.15	0.577	0.068	-0.250	0.060	3.088	-0.755	14.26	1.385	0.000	0.531	0.227	3.107	2.092
2.03	0.013	0.178	-0.324	0.056	3.178	0.058	8.15	0.575	0.070	-0.262	0.063	3.159	-0.793	14.26	1.401	0.000	0.556	0.240	3.178	2.205
2.03	0.007	0.186	-0.338	0.059	3.249	0.061	8.15	0.573	0.072	-0.274	0.066	3.230	-0.831	14.26	1.417	0.000	0.581	0.253	3.249	2.318
2.03	0.001	0.194	-0.352	0.062	3.320	0.064	8.15	0.571	0.074	-0.286	0.069	3.301	-0.869	14.26	1.433	0.000	0.606	0.266	3.320	2.431
2.03	-0.005	0.202	-0.366	0.065	3.391	0.067	8.15	0.569	0.076	-0.298	0.072	3.372	-0.907	14.26	1.449	0.000	0.631	0.279	3.391	2.544
2.03	-0.011	0.210	-0.380	0.068	3.462	0.070	8.15	0.567	0.078	-0.310	0.075	3.443	-0.945	14.26	1.465	0.000	0.656	0.292	3.462	2.657
2.03	-0.017	0.218	-0.394	0.071	3.533	0.073	8.15	0.565	0.080	-0.322	0.078	3.514	-0.983	14.26	1.481	0.000	0.681	0.305	3.533	2.770
2.03	-0.023	0.226	-0.408	0.074	3.604	0.076	8.15	0.563	0.082	-0.334	0.081	3.585	-1.021	14.26	1.497	0.000	0.706	0.318	3.604	2.883
2.03	-0.029	0.234	-0.422	0.077	3.675	0.079	8.15	0.561	0.084	-0.346	0.084	3.656	-1.059	14.26	1.513	0.000	0.731	0.331	3.675	2.996
2.03	-0.035	0.242	-0.436	0.080	3.746	0.082	8.15	0.559	0.086	-0.358	0.087	3.727	-1.097	14.26	1.529	0.000	0.756	0.344	3.746	3.109
2.03	-0.041	0.250	-0.450	0.083	3.817	0.085	8.15	0.557	0.088	-0.370	0.090	3.798	-1.135	14.26	1.545	0.000	0.781	0.357	3.817	3.222
2.03	-0.047	0.258	-0.464	0.086	3.888	0.088	8.15	0.555	0.090	-0.382	0.093	3.869	-1.173	14.26	1.561	0.000	0.806	0.370	3.888	3.335
2.03	-0.053	0.266	-0.478	0.089	3.959	0.091	8.15	0.553	0.092	-0.394	0.096	3.940	-1.211	14.26	1.577	0.000	0.831	0.383	3.959	3.448
2.03	-0.059	0.274	-0.492	0.092	4.030	0.094	8.15	0.551	0.094	-0.406	0.099	4.011	-1.249	14.26	1.593	0.000	0.856	0.396	4.030	3.561
2.03	-0.065	0.282	-0.506	0.095	4.101	0.097	8.15	0.549	0.096	-0.418	0.102	4.082	-1.287	14.26	1.609	0.000	0.881	0.409	4.101	3.674
2.03	-0.071	0.290	-0.520	0.098	4.172	0.100	8.15	0.547	0.098	-0.430	0.105	4.153	-1.325	14.26	1.625	0.000	0.906	0.422	4.172	3.787
2.03	-0.077	0.298	-0.534	0.101	4.243	0.103	8.15	0.545	0.100	-0.442	0.108	4.224	-1.363	14.26	1.641	0.000	0.931	0.435	4.243	3.900
2.03	-0.083	0.306	-0.548	0.104	4.314	0.106	8.15	0.543	0.102	-0.454	0.111	4.295	-1.401	14.26	1.657	0.000	0.956	0.448	4.314	4.013
2.03	-0.089	0.314	-0.562	0.107	4.385	0.109	8.15	0.541	0.104	-0.466	0.114	4.366	-1.439	14.26	1.673	0.000	0.981	0.461	4.385	4.126
2.03	-0.095	0.322	-0.576	0.110	4.456	0.112	8.15	0.539	0.106	-0.478	0.117	4.437	-1.477	14.26	1.689	0.000	1.006	0.474	4.456	4.239
2.03	-0.101	0.330	-0.590	0.113	4.527	0.115	8.15	0.537	0.108	-0.490	0.120	4.508	-1.515	14.26	1.705	0.000	1.031	0.487	4.527	4.352
2.03	-0.107	0.338	-0.604	0.116	4.598	0.118	8.15	0.535	0.110	-0.502	0.123	4.579	-1.553	14.26	1.721	0.000	1.056	0.500	4.598	4.465
2.03	-0.113	0.346	-0.618	0.119	4.669	0.121	8.15	0.533	0.112	-0.514	0.126	4.650	-1.591	14.26	1.737	0.000	1.081	0.513	4.669	4.578
2.03	-0.119	0.354	-0.632	0.122	4.740	0.124	8.15	0.531	0.114	-0.526	0.129	4.721	-1.629	14.26	1.753	0.000	1.106	0.526	4.740	4.691
2.03	-0.125	0.362	-0.646	0.125	4.811	0.127	8.15	0.529	0.116	-0.538	0.132	4.792	-1.667	14.26	1.769	0.000	1.131	0.539	4.811	4.804
2.03	-0.131	0.370	-0.660	0.128	4.882	0.130	8.15	0.527	0.118	-0.550	0.135	4.863	-1.705	14.26	1.785	0.000	1.156	0.552	4.882	4.917
2.03	-0.137	0.378	-0.674	0.131	4.953	0.133	8.15	0.525	0.120	-0.562	0.138	4.934	-1.743	14.26	1.801	0.000	1.181	0.565	4.953	5.030
2.03	-0.143	0.386	-0.688	0.134	5.024	0.136	8.15	0.523	0.122	-0.574	0.141	5.005	-1.781	14.26	1.817	0.000	1.206	0.578	5.024	5.143
2.03	-0.149	0.394	-0.702	0.137	5.095	0.139	8.15	0.521	0.124	-0.586	0.144	5.076	-1.819	14.26	1.833	0.000	1.231	0.591	5.095	5.256
2.03	-0.155	0.402	-0.716	0.140	5.166	0.142	8.15	0.519	0.126	-0.598	0.147	5.147	-1.857	14.26	1.849	0.000	1.256	0.604	5.166	5.369
2.03	-0.161	0.410	-0.730	0.143	5.237	0.145	8.15	0.517	0.128	-0.610	0.150	5.218	-1.895	14.26	1.865	0.000	1.281	0.617	5.237	5.482
2.03	-0.167	0.418	-0.744	0.146	5.308	0.148	8.15	0.515	0.130	-0.622	0.153	5.289	-1.933	14.26	1.881	0.000	1.306	0.630	5.308	5.595
2.03	-0.173	0.426	-0.758	0.149	5.379	0.151	8.15	0.513	0.132	-0.634	0.156	5.360	-1.971	14.26	1.897	0.000	1.331	0.643	5.379	5.708
2.03	-0.179	0.434	-0.772	0.152	5.450	0.154	8.15	0.511	0.134	-0.646	0.159	5.431	-2.009	14.26	1.913	0.000	1.356	0.656	5.450	5.821
2.03	-0.185	0.442	-0.786	0.155	5.521	0.157	8.15	0.509	0.136	-0.658	0.162	5.502	-2.047	14.26	1.929	0.000	1.381	0.669	5.521	5.934
2.03	-0.191	0.450	-0.800	0.158	5.592	0.160	8.15	0.507	0.138	-0.670	0.165	5.573	-2.085	14.26	1.945	0.00				

TABLE IV.--LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0; FLAPS UP--Continued

(b) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 4^\circ$

[illegible]

(c) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -8^\circ$

α	ζ_L	ζ_X	C_m	T_{cov}	δ_{av}	C_{cov}	α	ζ_L	ζ_X	C_m	T_{cov}	δ_{av}	C_{cov}	α	ζ_L	ζ_X	C_m	T_{cov}	δ_{av}	C_{cov}
$\theta_{2,00}$	0.063	0.018	0.166	--	1.063	--	$\theta_{1,10}$	0.922	0.029	0.045	-0.001	1.057	0.011	$\theta_{1,27}$	1.083	0.064	-0.06	0.03	1.071	0.012
2.00	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.01	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.02	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.03	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.04	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.05	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.06	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.07	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.08	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.09	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.10	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.11	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.12	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.13	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.14	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.15	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012
2.16	0.066	0.021	0.172	-0.003	1.063	0.005	8.114	0.922	0.029	0.045	-0.001	1.057	0.011	11.27	1.083	0.064	-0.06	0.03	1.071	0.012

TABLE V.- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.05 b/2; FLAPS UP - Continued

(b) $M = 0.082$; $R = 4,000,000$; $\beta = 31^\circ$; $i_t = 4^\circ$

α	C_L	C_D	T_{cav}	J_{av}	Q_{Pav}	α	C_L	C_D	T_{cav}	J_{av}	Q_{Pav}	α	C_L	C_D	T_{cav}	J_{av}	Q_{Pav}
2.02	0.099	0.017	0.071	0.000	0.000	8.16	0.685	0.031	-0.046	-0.005	-0.003	14.28	1.120	0.069	-0.175	0.005	1.350
2.01	0.091	0.021	0.064	0.000	0.000	8.16	0.685	0.034	-0.036	-0.004	-0.003	14.29	1.127	0.071	-0.174	0.005	1.350
2.01	0.088	0.027	0.061	0.000	0.000	8.16	0.685	0.039	-0.026	-0.004	-0.003	14.30	1.134	0.075	-0.173	0.005	1.350
2.02	0.084	0.033	0.058	0.000	0.000	8.16	0.685	0.044	-0.016	-0.004	-0.003	14.31	1.141	0.080	-0.172	0.005	1.350
2.01	0.081	0.039	0.055	0.000	0.000	8.16	0.685	0.049	-0.006	-0.004	-0.003	14.32	1.148	0.085	-0.171	0.005	1.350
2.01	0.078	0.045	0.052	0.000	0.000	8.16	0.685	0.054	-0.001	-0.004	-0.003	14.33	1.155	0.090	-0.170	0.005	1.350
2.01	0.075	0.051	0.049	0.000	0.000	8.16	0.685	0.059	0.004	-0.004	-0.003	14.34	1.162	0.095	-0.169	0.005	1.350
2.01	0.072	0.057	0.046	0.000	0.000	8.16	0.685	0.064	0.009	-0.004	-0.003	14.35	1.169	0.100	-0.168	0.005	1.350
2.01	0.069	0.063	0.043	0.000	0.000	8.16	0.685	0.069	0.014	-0.004	-0.003	14.36	1.176	0.105	-0.167	0.005	1.350
2.01	0.066	0.069	0.040	0.000	0.000	8.16	0.685	0.074	0.019	-0.004	-0.003	14.37	1.183	0.110	-0.166	0.005	1.350
2.01	0.063	0.075	0.037	0.000	0.000	8.16	0.685	0.079	0.024	-0.004	-0.003	14.38	1.190	0.115	-0.165	0.005	1.350
2.01	0.060	0.081	0.034	0.000	0.000	8.16	0.685	0.084	0.029	-0.004	-0.003	14.39	1.197	0.120	-0.164	0.005	1.350
2.01	0.057	0.087	0.031	0.000	0.000	8.16	0.685	0.089	0.034	-0.004	-0.003	14.40	1.204	0.125	-0.163	0.005	1.350
2.01	0.054	0.093	0.028	0.000	0.000	8.16	0.685	0.094	0.039	-0.004	-0.003	14.41	1.211	0.130	-0.162	0.005	1.350
2.01	0.051	0.099	0.025	0.000	0.000	8.16	0.685	0.099	0.044	-0.004	-0.003	14.42	1.218	0.135	-0.161	0.005	1.350
2.01	0.048	0.105	0.022	0.000	0.000	8.16	0.685	0.104	0.049	-0.004	-0.003	14.43	1.225	0.140	-0.160	0.005	1.350
2.01	0.045	0.111	0.019	0.000	0.000	8.16	0.685	0.109	0.054	-0.004	-0.003	14.44	1.232	0.145	-0.159	0.005	1.350
2.01	0.042	0.117	0.016	0.000	0.000	8.16	0.685	0.114	0.059	-0.004	-0.003	14.45	1.239	0.150	-0.158	0.005	1.350
2.01	0.039	0.123	0.013	0.000	0.000	8.16	0.685	0.119	0.064	-0.004	-0.003	14.46	1.246	0.155	-0.157	0.005	1.350
2.01	0.036	0.129	0.010	0.000	0.000	8.16	0.685	0.124	0.069	-0.004	-0.003	14.47	1.253	0.160	-0.156	0.005	1.350
2.01	0.033	0.135	0.007	0.000	0.000	8.16	0.685	0.129	0.074	-0.004	-0.003	14.48	1.260	0.165	-0.155	0.005	1.350
2.01	0.030	0.141	0.004	0.000	0.000	8.16	0.685	0.134	0.079	-0.004	-0.003	14.49	1.267	0.170	-0.154	0.005	1.350
2.01	0.027	0.147	0.001	0.000	0.000	8.16	0.685	0.139	0.084	-0.004	-0.003	14.50	1.274	0.175	-0.153	0.005	1.350
2.01	0.024	0.153	0.000	0.000	0.000	8.16	0.685	0.144	0.089	-0.004	-0.003	14.51	1.281	0.180	-0.152	0.005	1.350
2.01	0.021	0.159	0.000	0.000	0.000	8.16	0.685	0.149	0.094	-0.004	-0.003	14.52	1.288	0.185	-0.151	0.005	1.350
2.01	0.018	0.165	0.000	0.000	0.000	8.16	0.685	0.154	0.099	-0.004	-0.003	14.53	1.295	0.190	-0.150	0.005	1.350
2.01	0.015	0.171	0.000	0.000	0.000	8.16	0.685	0.159	0.104	-0.004	-0.003	14.54	1.302	0.195	-0.149	0.005	1.350
2.01	0.012	0.177	0.000	0.000	0.000	8.16	0.685	0.164	0.109	-0.004	-0.003	14.55	1.309	0.200	-0.148	0.005	1.350
2.01	0.009	0.183	0.000	0.000	0.000	8.16	0.685	0.169	0.114	-0.004	-0.003	14.56	1.316	0.205	-0.147	0.005	1.350
2.01	0.006	0.189	0.000	0.000	0.000	8.16	0.685	0.174	0.119	-0.004	-0.003	14.57	1.323	0.210	-0.146	0.005	1.350
2.01	0.003	0.195	0.000	0.000	0.000	8.16	0.685	0.179	0.124	-0.004	-0.003	14.58	1.330	0.215	-0.145	0.005	1.350
2.01	0.000	0.201	0.000	0.000	0.000	8.16	0.685	0.184	0.129	-0.004	-0.003	14.59	1.337	0.220	-0.144	0.005	1.350
2.01	0.000	0.207	0.000	0.000	0.000	8.16	0.685	0.189	0.134	-0.004	-0.003	14.60	1.344	0.225	-0.143	0.005	1.350
2.01	0.000	0.213	0.000	0.000	0.000	8.16	0.685	0.194	0.139	-0.004	-0.003	14.61	1.351	0.230	-0.142	0.005	1.350
2.01	0.000	0.219	0.000	0.000	0.000	8.16	0.685	0.199	0.144	-0.004	-0.003	14.62	1.358	0.235	-0.141	0.005	1.350
2.01	0.000	0.225	0.000	0.000	0.000	8.16	0.685	0.204	0.149	-0.004	-0.003	14.63	1.365	0.240	-0.140	0.005	1.350
2.01	0.000	0.231	0.000	0.000	0.000	8.16	0.685	0.209	0.154	-0.004	-0.003	14.64	1.372	0.245	-0.139	0.005	1.350
2.01	0.000	0.237	0.000	0.000	0.000	8.16	0.685	0.214	0.159	-0.004	-0.003	14.65	1.379	0.250	-0.138	0.005	1.350
2.01	0.000	0.243	0.000	0.000	0.000	8.16	0.685	0.219	0.164	-0.004	-0.003	14.66	1.386	0.255	-0.137	0.005	1.350
2.01	0.000	0.249	0.000	0.000	0.000	8.16	0.685	0.224	0.169	-0.004	-0.003	14.67	1.393	0.260	-0.136	0.005	1.350
2.01	0.000	0.255	0.000	0.000	0.000	8.16	0.685	0.229	0.174	-0.004	-0.003	14.68	1.400	0.265	-0.135	0.005	1.350
2.01	0.000	0.261	0.000	0.000	0.000	8.16	0.685	0.234	0.179	-0.004	-0.003	14.69	1.407	0.270	-0.134	0.005	1.350
2.01	0.000	0.267	0.000	0.000	0.000	8.16	0.685	0.239	0.184	-0.004	-0.003	14.70	1.414	0.275	-0.133	0.005	1.350
2.01	0.000	0.273	0.000	0.000	0.000	8.16	0.685	0.244	0.189	-0.004	-0.003	14.71	1.421	0.280	-0.132	0.005	1.350
2.01	0.000	0.279	0.000	0.000	0.000	8.16	0.685	0.249	0.194	-0.004	-0.003	14.72	1.428	0.285	-0.131	0.005	1.350
2.01	0.000	0.285	0.000	0.000	0.000	8.16	0.685	0.254	0.199	-0.004	-0.003	14.73	1.435	0.290	-0.130	0.005	1.350
2.01	0.000	0.291	0.000	0.000	0.000	8.16	0.685	0.259	0.204	-0.004	-0.003	14.74	1.442	0.295	-0.129	0.005	1.350
2.01	0.000	0.297	0.000	0.000	0.000	8.16	0.685	0.264	0.209	-0.004	-0.003	14.75	1.449	0.300	-0.128	0.005	1.350
2.01	0.000	0.303	0.000	0.000	0.000	8.16	0.685	0.269	0.214	-0.004	-0.003	14.76	1.456	0.305	-0.127	0.005	1.350
2.01	0.000	0.309	0.000	0.000	0.000	8.16	0.685	0.274	0.219	-0.004	-0.003	14.77	1.463	0.310	-0.126	0.005	1.350
2.01	0.000	0.315	0.000	0.000	0.000	8.16	0.685	0.279	0.224	-0.004	-0.003	14.78	1.470	0.315	-0.125	0.005	1.350
2.01	0.000	0.321	0.000	0.000	0.000	8.16	0.685	0.284	0.229	-0.004	-0.003	14.79	1.477	0.320	-0.124	0.005	1.350
2.01	0.000	0.327	0.000	0.000	0.000	8.16	0.685	0.289	0.234	-0.004	-0.003	14.80	1.484	0.325	-0.123	0.005	1.350
2.01	0.000	0.333	0.000	0.000	0.000	8.16	0.685	0.294	0.239	-0.004	-0.003	14.81	1.491	0.330	-0.122	0.005	1.350
2.01	0.000	0.339	0.000	0.000	0.000	8.16	0.685	0.299	0.244	-0.004	-0.003	14.82	1.498	0.335	-0.121	0.005	1.350
2.01	0.000	0.345	0.000	0.000	0.000	8.16	0.685	0.304	0.249	-0.004	-0.003	14.83	1.505	0.340	-0.120	0.005	1.350
2.01	0.000	0.351	0.000	0.000	0.000	8.16	0.685	0.309	0.254	-0.004	-0.003	14.84	1.512	0.345	-0.119	0.005	1.350
2.01	0.000	0.357	0.000	0.000	0.000	8.16	0.685	0.314	0.259	-0.004	-0.003	14.85	1.519	0.350	-0.118	0.005	1.350
2.01	0.000	0.363	0.000	0.000	0.000	8.16	0.685	0.319	0.264	-0.004	-0.003	14.86	1.526	0.355	-0.117	0.005	1.350
2.01	0.000	0.369	0.000	0.000	0.000	8.16	0.685	0.324	0.269	-0.004	-0.003	14.87	1.533	0.360	-0.116	0.005	1.350
2.01	0.000	0.375	0.000	0.000	0.000	8.16	0.685	0.329	0.274	-0.004	-0.003	14.88	1.540	0.365	-0.115	0.005	1.350
2.01	0.000	0.381	0.000	0.000	0.000	8.16	0.685	0.334	0.279	-0.004	-0.003	14.89	1.547	0.370	-0.114	0.005	1.350
2.01	0.000	0.387	0.000	0.000	0.000	8.16	0.685	0.339	0.284	-0.004	-0.003	14.90	1.554	0.375	-0.113	0.005	1.350
2.01	0.000	0.393	0.000	0.000	0.000	8.16	0.685	0.344	0.289	-0.004	-0.003	14.91	1.561	0.380	-0.112	0.005	1.350
2.01	0.000	0.399	0.000	0.000	0.000	8.16	0.685	0.349	0.294	-0.004	-0.003	14.92	1.568	0.385	-0.111	0.005	

TABLE V.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.05 b/2; FLAPS UP -- Continued

(a) $M = 0.123$; $R = 4,000,000$; $\beta = 31^\circ$; $i_t = 4^\circ$

α	C_L	C_D	C_{D0}	C_{D1}	C_{D2}	C_{D3}	C_{D4}	C_{D5}	C_{D6}	C_{D7}	C_{D8}	C_{D9}	C_{D10}	C_{D11}	C_{D12}	C_{D13}	C_{D14}	C_{D15}	C_{D16}	C_{D17}	C_{D18}	C_{D19}	C_{D20}	C_{D21}	C_{D22}	C_{D23}	C_{D24}	C_{D25}	C_{D26}	C_{D27}	C_{D28}	C_{D29}	C_{D30}	C_{D31}	C_{D32}	C_{D33}	C_{D34}	C_{D35}	C_{D36}	C_{D37}	C_{D38}	C_{D39}	C_{D40}	C_{D41}	C_{D42}	C_{D43}	C_{D44}	C_{D45}	C_{D46}	C_{D47}	C_{D48}	C_{D49}	C_{D50}	C_{D51}	C_{D52}	C_{D53}	C_{D54}	C_{D55}	C_{D56}	C_{D57}	C_{D58}	C_{D59}	C_{D60}	C_{D61}	C_{D62}	C_{D63}	C_{D64}	C_{D65}	C_{D66}	C_{D67}	C_{D68}	C_{D69}	C_{D70}	C_{D71}	C_{D72}	C_{D73}	C_{D74}	C_{D75}	C_{D76}	C_{D77}	C_{D78}	C_{D79}	C_{D80}	C_{D81}	C_{D82}	C_{D83}	C_{D84}	C_{D85}	C_{D86}	C_{D87}	C_{D88}	C_{D89}	C_{D90}	C_{D91}	C_{D92}	C_{D93}	C_{D94}	C_{D95}	C_{D96}	C_{D97}	C_{D98}	C_{D99}	C_{D100}	C_{D101}	C_{D102}	C_{D103}	C_{D104}	C_{D105}	C_{D106}	C_{D107}	C_{D108}	C_{D109}	C_{D110}	C_{D111}	C_{D112}	C_{D113}	C_{D114}	C_{D115}	C_{D116}	C_{D117}	C_{D118}	C_{D119}	C_{D120}	C_{D121}	C_{D122}	C_{D123}	C_{D124}	C_{D125}	C_{D126}	C_{D127}	C_{D128}	C_{D129}	C_{D130}	C_{D131}	C_{D132}	C_{D133}	C_{D134}	C_{D135}	C_{D136}	C_{D137}	C_{D138}	C_{D139}	C_{D140}	C_{D141}	C_{D142}	C_{D143}	C_{D144}	C_{D145}	C_{D146}	C_{D147}	C_{D148}	C_{D149}	C_{D150}	C_{D151}	C_{D152}	C_{D153}	C_{D154}	C_{D155}	C_{D156}	C_{D157}	C_{D158}	C_{D159}	C_{D160}	C_{D161}	C_{D162}	C_{D163}	C_{D164}	C_{D165}	C_{D166}	C_{D167}	C_{D168}	C_{D169}	C_{D170}	C_{D171}	C_{D172}	C_{D173}	C_{D174}	C_{D175}	C_{D176}	C_{D177}	C_{D178}	C_{D179}	C_{D180}	C_{D181}	C_{D182}	C_{D183}	C_{D184}	C_{D185}	C_{D186}	C_{D187}	C_{D188}	C_{D189}	C_{D190}	C_{D191}	C_{D192}	C_{D193}	C_{D194}	C_{D195}	C_{D196}	C_{D197}	C_{D198}	C_{D199}	C_{D200}	C_{D201}	C_{D202}	C_{D203}	C_{D204}	C_{D205}	C_{D206}	C_{D207}	C_{D208}	C_{D209}	C_{D210}	C_{D211}	C_{D212}	C_{D213}	C_{D214}	C_{D215}	C_{D216}	C_{D217}	C_{D218}	C_{D219}	C_{D220}	C_{D221}	C_{D222}	C_{D223}	C_{D224}	C_{D225}	C_{D226}	C_{D227}	C_{D228}	C_{D229}	C_{D230}	C_{D231}	C_{D232}	C_{D233}	C_{D234}	C_{D235}	C_{D236}	C_{D237}	C_{D238}	C_{D239}	C_{D240}	C_{D241}	C_{D242}	C_{D243}	C_{D244}	C_{D245}	C_{D246}	C_{D247}	C_{D248}	C_{D249}	C_{D250}	C_{D251}	C_{D252}	C_{D253}	C_{D254}	C_{D255}	C_{D256}	C_{D257}	C_{D258}	C_{D259}	C_{D260}	C_{D261}	C_{D262}	C_{D263}	C_{D264}	C_{D265}	C_{D266}	C_{D267}	C_{D268}	C_{D269}	C_{D270}	C_{D271}	C_{D272}	C_{D273}	C_{D274}	C_{D275}	C_{D276}	C_{D277}	C_{D278}	C_{D279}	C_{D280}	C_{D281}	C_{D282}	C_{D283}	C_{D284}	C_{D285}	C_{D286}	C_{D287}	C_{D288}	C_{D289}	C_{D290}	C_{D291}	C_{D292}	C_{D293}	C_{D294}	C_{D295}	C_{D296}	C_{D297}	C_{D298}	C_{D299}	C_{D300}	C_{D301}	C_{D302}	C_{D303}	C_{D304}	C_{D305}	C_{D306}	C_{D307}	C_{D308}	C_{D309}	C_{D310}	C_{D311}	C_{D312}	C_{D313}	C_{D314}	C_{D315}	C_{D316}	C_{D317}	C_{D318}	C_{D319}	C_{D320}	C_{D321}	C_{D322}	C_{D323}	C_{D324}	C_{D325}	C_{D326}	C_{D327}	C_{D328}	C_{D329}	C_{D330}	C_{D331}	C_{D332}	C_{D333}	C_{D334}	C_{D335}	C_{D336}	C_{D337}	C_{D338}	C_{D339}	C_{D340}	C_{D341}	C_{D342}	C_{D343}	C_{D344}	C_{D345}	C_{D346}	C_{D347}	C_{D348}	C_{D349}	C_{D350}	C_{D351}	C_{D352}	C_{D353}	C_{D354}	C_{D355}	C_{D356}	C_{D357}	C_{D358}	C_{D359}	C_{D360}	C_{D361}	C_{D362}	C_{D363}	C_{D364}	C_{D365}	C_{D366}	C_{D367}	C_{D368}	C_{D369}	C_{D370}	C_{D371}	C_{D372}	C_{D373}	C_{D374}	C_{D375}	C_{D376}	C_{D377}	C_{D378}	C_{D379}	C_{D380}	C_{D381}	C_{D382}	C_{D383}	C_{D384}	C_{D385}	C_{D386}	C_{D387}	C_{D388}	C_{D389}	C_{D390}	C_{D391}	C_{D392}	C_{D393}	C_{D394}	C_{D395}	C_{D396}	C_{D397}	C_{D398}	C_{D399}	C_{D400}	C_{D401}	C_{D402}	C_{D403}	C_{D404}	C_{D405}	C_{D406}	C_{D407}	C_{D408}	C_{D409}	C_{D410}	C_{D411}	C_{D412}	C_{D413}	C_{D414}	C_{D415}	C_{D416}	C_{D417}	C_{D418}	C_{D419}	C_{D420}	C_{D421}	C_{D422}	C_{D423}	C_{D424}	C_{D425}	C_{D426}	C_{D427}	C_{D428}	C_{D429}	C_{D430}	C_{D431}	C_{D432}	C_{D433}	C_{D434}	C_{D435}	C_{D436}	C_{D437}	C_{D438}	C_{D439}	C_{D440}	C_{D441}	C_{D442}	C_{D443}	C_{D444}	C_{D445}	C_{D446}	C_{D447}	C_{D448}	C_{D449}	C_{D450}	C_{D451}	C_{D452}	C_{D453}	C_{D454}	C_{D455}	C_{D456}	C_{D457}	C_{D458}	C_{D459}	C_{D460}	C_{D461}	C_{D462}	C_{D463}	C_{D464}	C_{D465}	C_{D466}	C_{D467}	C_{D468}	C_{D469}	C_{D470}	C_{D471}	C_{D472}	C_{D473}	C_{D474}	C_{D475}	C_{D476}	C_{D477}	C_{D478}	C_{D479}	C_{D480}	C_{D481}	C_{D482}	C_{D483}	C_{D484}	C_{D485}	C_{D486}	C_{D487}	C_{D488}	C_{D489}	C_{D490}	C_{D491}	C_{D492}	C_{D493}	C_{D494}	C_{D495}	C_{D496}	C_{D497}	C_{D498}	C_{D499}	C_{D500}	C_{D501}	C_{D502}	C_{D503}	C_{D504}	C_{D505}	C_{D506}	C_{D507}	C_{D508}	C_{D509}	C_{D510}	C_{D511}	C_{D512}	C_{D513}	C_{D514}	C_{D515}	C_{D516}	C_{D517}	C_{D518}	C_{D519}	C_{D520}	C_{D521}	C_{D522}	C_{D523}	C_{D524}	C_{D525}	C_{D526}	C_{D527}	C_{D528}	C_{D529}	C_{D530}	C_{D531}	C_{D532}	C_{D533}	C_{D534}	C_{D535}	C_{D536}	C_{D537}	C_{D538}	C_{D539}	C_{D540}	C_{D541}	C_{D542}	C_{D543}	C_{D544}	C_{D545}	C_{D546}	C_{D547}	C_{D548}	C_{D549}	C_{D550}	C_{D551}	C_{D552}	C_{D553}	C_{D554}	C_{D555}	C_{D556}	C_{D557}	C_{D558}	C_{D559}	C_{D560}	C_{D561}	C_{D562}	C_{D563}	C_{D564}	C_{D565}	C_{D566}	C_{D567}	C_{D568}	C_{D569}	C_{D570}	C_{D571}	C_{D572}	C_{D573}	C_{D574}	C_{D575}	C_{D576}	C_{D577}	C_{D578}	C_{D579}	C_{D580}	C_{D581}	C_{D582}	C_{D583}	C_{D584}	C_{D585}	C_{D586}	C_{D587}	C_{D588}	C_{D589}	C_{D590}	C_{D591}	C_{D592}	C_{D593}	C_{D594}	C_{D595}	C_{D596}	C_{D597}	C_{D598}	C_{D599}	C_{D600}	C_{D601}	C_{D602}	C_{D603}	C_{D604}	C_{D605}	C_{D606}	C_{D607}	C_{D608}	C_{D609}	C_{D610}	C_{D611}	C_{D612}	C_{D613}	C_{D614}	C_{D615}	C_{D616}	C_{D617}	C_{D618}	C_{D619}	C_{D620}	C_{D621}	C_{D622}	C_{D623}	C_{D624}	C_{D625}	C_{D626}	C_{D627}	C_{D628}	C_{D629}	C_{D630}	C_{D631}	C_{D632}	C_{D633}	C_{D634}	C_{D635}	C_{D636}	C_{D637}	C_{D638}	C_{D639}	C_{D640}	C_{D641}	C_{D642}	C_{D643}	C_{D644}	C_{D645}	C_{D646}	C_{D647}	C_{D648}	C_{D649}	C_{D650}	C_{D651}	C_{D652}	C_{D653}	C_{D654}	C_{D655}	C_{D656}	C_{D657}	C_{D658}	C_{D659}	C_{D660}	C_{D661}	C_{D662}	C_{D663}	C_{D664}	C_{D665}	C_{D666}	C_{D667}	C_{D668}	C_{D669}	C_{D670}	C_{D671}	C_{D672}	C_{D673}	C_{D674}	C_{D675}	C_{D676}	C_{D677}	C_{D678}	C_{D679}	C_{D680}	C_{D681}	C_{D682}	C_{D683}	C_{D684}	C_{D685}	C_{D686}	C_{D687}	C_{D688}	C_{D689}	C_{D690}	C_{D691}	C_{D692}	C_{D693}	C_{D694}	C_{D695}	C_{D696}	C_{D697}	C_{D698}	C_{D699}	C_{D700}	C_{D701}	C_{D702}	C_{D703}	C_{D704}	C_{D705}	C_{D706}	C_{D707}	C_{D708}	C_{D709}	C_{D710}	C_{D711}	C_{D712}	C_{D713}	C_{D714}	C_{D715}	C_{D716}	C_{D717}	C_{D718}	C_{D719}	C_{D720}	C_{D721}	C_{D722}	C_{D723}	C_{D724}	C_{D725}	C_{D726}	C_{D727}	C_{D728}	C_{D729}	C_{D730}	C_{D731}	C_{D732}	C_{D733}	C_{D734}	C_{D735}	C_{D736}	C_{D737}	C_{D738}	C_{D739}	C_{D740}	C_{D741}	C_{D742}	C_{D743}	C_{D744}	C_{D745}	C_{D746}	C_{D747}	C_{D748}	C_{D749}	C_{D750}	C_{D751}	C_{D752}	C_{D753}	C_{D754}	C_{D755}	C_{D756}	C_{D757}	C_{D758}	C_{D759}	C_{D760}	C_{D761}	C_{D762}	C_{D763}	C_{D764}	C_{D765}	C_{D766}	C_{D767}	C_{D768}	C_{D769}	C_{D770}	C_{D771}	C_{D772}	C_{D773}	C_{D774}	C_{D775}	C_{D776}	C_{D777}	C_{D778}	C_{D779}	C_{D780}	C_{D781}	C_{D782}	C_{D783}	C_{D784}	C_{D785}	C_{D786}	C_{D787}	C_{D788}	C_{D789}	C_{D790}	C_{D791}	C_{D792}	C_{D793}	C_{D794}	C_{D795}	C_{D796}	C_{D797}	C_{D798}	C_{D799}	C_{D800}	C_{D801}	C_{D802}	C_{D803}	C_{D804}	C_{D805}	C_{D806}	C_{D807}	C_{D808}	C_{D809}	C_{D810}	C_{D811}	C_{D812}	C_{D813}	C_{D814}	C_{D815}	C_{D816}	C_{D817}	C_{D818}	C_{D819}	C_{D820}	C_{D821}	C_{D822}	C_{D823}	C_{D824}	C_{D825}	C_{D826}	C_{D827}	C_{D828}	C_{D829}	C_{D830}	C_{D831}	C_{D832}	C_{D833}	C_{D834}	C_{D835}	C_{D836}	C_{D837}	C_{D838}	C_{D839}	C_{D840}	C_{D841}	C_{D842}	C_{D843}	C_{D844}	C_{D845}	C_{D846}	C_{D847}	C_{D848}	C_{D849}	C_{D850}	C_{D851}	C_{D852}	C_{D853}	C_{D854}	C_{D855}	C_{D856}	C_{D857}	C_{D858}	C_{D859}	C_{D860}	C_{D861}	C_{D862}	C_{D863}	C_{D864}	C_{D865}	C_{D866}	C_{D867}	C_{D868}
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TABLE V.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.05 b/2; FLAPS UP -- Continued

(f) $M = 0.123$; $R = 6,000,000$; $\beta = 31^\circ$; $i_t = 4^\circ$

α	ζ_L	ζ_X	C_m	T_{cav}	J_{av}	C_{pav}	α	ζ_L	ζ_X	C_m	T_{cav}	J_{av}	C_{pav}
α_1 2.02	0.101	0.017	0.084	-0.004	1.130	0	α_1 16	0.629	0.031	-0.041	-0.003	-1.326	-
2.02	0.098	0.020	0.077	-0.004	1.130	0	8.15	0.619	0.033	-0.029	-0.003	-1.326	-
2.02	0.093	0.025	0.091	0.027	1.183	0.057	8.15	0.613	0.031	-0.021	0.025	-1.346	0
2.02	0.086	0.044	0.107	0.083	1.030	0.130	8.15	0.662	0.032	-0.004	0.085	1.192	0.062
2.02	0.074	-0.113	0.129	0.186	0.990	0.166	8.17	0.698	-0.100	0.019	0.170	1.036	0.122
2.02	0.055	-0.283	0.170	0.309	0.750	0.224	8.15	0.781	-0.210	0.053	0.314	0.888	0.175
													0.221
α_4 4.07	0.284	0.019	0.041	-	-	-	α_4 10.20	0.796	0.040	-0.075	-	-	-
4.07	0.283	0.021	0.037	-	-	-	10.20	0.799	0.043	-0.054	-	-	-
4.07	0.287	0.031	0.052	0.027	1.190	0.053	10.20	0.822	0.018	-0.056	0.044	-1.334	-
4.07	0.286	-0.042	0.069	0.080	1.039	0.109	10.21	0.852	-0.020	-0.045	0.081	-1.036	0.093
4.08	0.286	-0.042	0.069	0.080	1.039	0.109	10.21	0.852	-0.020	-0.045	0.081	-1.036	0.093
4.07	0.286	-0.042	0.069	0.080	1.039	0.109	10.21	0.852	-0.020	-0.045	0.081	-1.036	0.093
4.07	0.277	-0.224	0.141	0.171	0.887	0.164	10.22	0.947	-0.087	-0.036	0.166	0.831	0.128
							12.16	10.24	-0.194	-0.017	0.311	0.749	0.161
													0.196
α_6 6.11	0.461	0.083	0.002	-	-	-	α_6 12.24	0.963	0.092	-0.117	-	-	-
6.11	0.459	0.026	0.003	-0.002	1.132	-0.006	12.24	0.969	0.094	-0.102	-0.001	-1.326	-
6.12	0.467	0.003	0.015	0.029	1.185	0.053	12.25	0.986	0.030	-0.098	0.031	-1.181	0.063
6.12	0.478	-0.039	0.034	0.084	1.032	0.110	12.25	1.006	-0.090	-0.091	0.082	-1.035	0.115
6.13	0.488	-0.107	0.063	0.174	0.885	0.165	12.27	1.057	-0.068	-0.088	0.166	-0.751	0.220
6.12	0.496	-0.219	0.110	0.314	0.747	0.217	12.29	1.167	-0.172	-0.072	0.307	-	-

propellers removed

(g) $M = 0.165$; $R = 8,000,000$; $\beta = 31^\circ$; $i_t = 4^\circ$

α	C_L	χ	C_m	T_{gav}	J_{av}	C_p^{gav}	α	C_L	χ	C_m	T_{gav}	J_{av}	C_p^{gav}
2.02	0.092	0.017	0.089	-0.004	1.344	-0.006	8.16	0.630	0.030	-0.042	-0.008	1.376	-0.006
2.02	0.095	0.037	0.081	-0.004	1.246	0.033	8.15	0.623	0.033	-0.030	-0.008	1.262	-0.008
2.02	0.092	0.017	0.088	0.02	1.246	0.033	8.16	0.623	0.033	-0.030	-0.008	1.262	-0.008
2.02	0.091	0.014	0.099	0.038	1.146	0.072	8.15	0.613	0.019	-0.025	0.011	1.156	0.011
2.02	0.085	-0.044	0.12	0.079	1.044	0.148	8.15	0.598	0.028	-0.007	0.074	1.056	0.028
2.02	0.079	-0.084	0.124	0.127	0.954	0.181	8.17	0.573	0.067	0.006	0.123	0.962	0.067
2.02	0.076	-0.114	0.132	0.168	0.896	0.170	8.17	0.566	0.099	0.018	0.164	0.902	0.099
4.07	0.282	0.028	0.043	-	-	-	10.20	0.800	0.039	-0.080	-	-	-
4.07	0.279	0.028	0.043	-	-	-	10.20	0.795	0.038	-0.080	-	-	-
4.07	0.280	0.047	0.069	0.168	0.732	0.103	10.20	0.802	0.061	0.015	0.164	0.732	0.061
4.07	0.280	-0.012	0.098	0.153	0.938	0.113	10.20	0.800	0.018	-0.049	0.036	0.938	0.018
4.07	0.282	-0.046	0.069	0.075	1.060	0.151	10.21	0.821	0.097	0.075	0.097	1.057	0.097
4.07	0.282	-0.083	0.095	0.126	0.962	0.153	10.22	0.812	0.087	0.040	0.122	0.959	0.087
4.07	0.279	-0.113	0.095	0.164	0.907	0.175	10.22	0.809	0.086	0.037	0.163	0.904	0.086
6.11	0.456	0.023	0.002	-	-	-	12.25	0.967	0.050	-0.123	-	-	-
6.11	0.453	0.024	0.003	-0.008	1.349	0.067	12.24	0.967	0.051	-0.102	-	-	-
6.11	0.457	0.014	0.009	0.010	1.267	0.030	12.24	0.962	0.042	0.093	0.032	1.267	0.042
6.12	0.465	-0.008	0.018	0.039	1.154	0.072	12.25	0.968	0.020	0.094	0.073	1.152	0.020
6.12	0.471	-0.036	0.031	0.077	1.097	0.111	12.26	1.035	0.044	0.094	0.073	1.067	0.044
6.12	0.478	-0.074	0.047	0.125	0.965	0.141	12.27	1.074	0.062	0.080	0.125	0.959	0.062
6.13	0.485	-0.109	0.061	0.171	0.900	0.173	12.28	1.093	0.068	0.088	0.157	0.913	0.068

6.13 | .407 | - .107 |
 propellers removed

TABLE V.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.05 b/2; FLAPS UP -- Concluded

(h) $M = 0.165$; $R = 8,000,000$; $\beta = 36^\circ$; $i_t = -4^\circ$

α	C_L	C_D	C_m	T_{cav}	J_{cav}	$C_{p_{cav}}$	α	C_L	C_D	C_m	T_{cav}	J_{cav}	$C_{p_{cav}}$
2.01	0.092	0.017	0.089	-	-	-	8.16	0.590	0.030	-0.012	-	-	-
2.01	0.092	0.022	0.076	-	-	-	8.16	0.627	0.033	-0.029	-	-	-
2.01	0.091	0.011	0.085	-	-	-	8.16	0.687	0.026	-0.027	-	-	-
2.02	0.087	0.002	0.092	-	-	-	8.15	0.631	0.012	-0.022	-	-	-
2.02	0.086	0.002	0.102	-	-	-	8.16	0.647	-0.012	-0.045	-	-	-
2.01	0.081	0.051	0.112	0.076	1.218	0.202	8.17	0.660	-0.037	-0.002	0.775	1.221	0.202
2.01	0.074	-0.088	0.127	0.121	1.102	0.296	8.17	0.675	-0.073	-0.013	1.21	1.103	0.296
4.07	0.282	0.018	0.043	-	-	-	10.20	0.800	0.039	-0.060	-	-	-
4.07	0.276	0.023	0.034	-	-	-	10.20	0.792	0.044	-0.093	-	-	-
4.07	0.278	0.013	0.042	-	-	-	10.20	0.803	0.034	-0.094	-	-	-
4.07	0.279	0.051	0.042	0.017	1.470	0.086	10.20	0.807	-0.022	-0.057	0.017	1.476	0.086
4.07	0.280	-0.024	0.066	0.046	1.324	0.153	10.21	0.828	-0.001	-0.048	0.046	1.328	0.159
4.07	0.277	-0.049	0.072	0.082	1.217	0.200	10.21	0.832	-0.026	-0.042	0.077	1.220	0.208
4.07	0.280	-0.086	0.086	0.124	1.103	0.292	10.22	0.876	-0.060	-0.033	0.121	1.105	0.297
6.11	0.456	0.023	-0.002	-	-	-	12.25	0.967	0.090	-0.123	-	-	-
6.11	0.453	0.018	-0.008	-	-	-	12.25	0.977	0.084	-0.127	-	-	-
6.11	0.452	0.018	0.007	-	-	-	12.24	0.974	0.094	-0.127	-	-	-
6.11	0.462	0.007	0.013	-	-	-	12.25	0.990	0.082	-0.093	0.021	1.367	0.104
6.12	0.465	-0.018	0.022	-	-	-	12.26	1.019	0.010	-0.089	0.031	1.380	0.129
6.12	0.472	-0.041	0.032	0.074	1.231	0.253	12.26	1.040	-0.010	-0.086	0.077	1.223	0.260
6.12	0.479	-0.081	0.051	0.123	1.104	0.253	12.27	1.077	-0.044	-0.081	0.121	1.107	0.260

Propellers removed

TABLE VI.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; FLAPS UP

(a) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$

α	C_L	C_D	C_m	T_{cav}	J_{cav}	$C_{p_{cav}}$	α	C_L	C_D	C_m	T_{cav}	J_{cav}	$C_{p_{cav}}$
2.01	0.092	0.016	0.091	-	-	-	8.15	0.620	0.030	-0.035	-	-	-
2.02	0.092	0.015	0.087	-	-	-	8.16	0.687	0.031	-0.019	-	-	-
2.02	0.089	-0.017	0.095	-	-	-	8.15	0.643	-0.004	-0.005	-	-	-
2.02	0.083	-0.028	0.108	-	-	-	8.17	0.685	-0.013	-0.044	-	-	-
2.02	0.075	-0.241	0.154	0.300	0.748	0.049	8.17	0.699	-0.200	-0.085	0.311	0.645	0.049
2.01	0.032	-0.414	0.191	0.941	0.945	0.166	8.18	0.728	-0.380	-0.143	0.953	0.953	0.166
2.01	0.020	-0.535	0.215	0.691	0.998	0.179	8.18	0.747	-0.515	-0.194	0.685	0.900	0.180
2.01	0.005	-0.647	0.227	0.830	0.967	0.190	8.19	0.758	-0.683	-0.223	0.838	0.868	0.189
4.07	0.282	0.018	0.050	-	-	-	10.20	0.793	0.040	-0.070	-	-	-
4.07	0.278	0.017	0.054	-	-	-	10.20	0.802	0.036	-0.058	-	-	-
4.07	0.280	-0.015	0.063	-	-	-	10.20	0.810	-0.022	-0.082	-	-	-
4.07	0.280	0.007	0.065	-	-	-	10.22	0.855	-0.027	-0.087	-	-	-
4.07	0.277	0.025	0.099	0.017	1.488	0.071	10.22	0.862	-0.036	-0.082	0.017	1.488	0.071
4.07	0.276	-0.226	0.132	0.301	0.651	0.134	10.24	0.969	-0.203	-0.086	0.306	0.647	0.134
4.07	0.265	-0.411	0.179	0.940	0.946	0.166	10.24	0.972	-0.367	-0.117	0.922	0.951	0.165
4.07	0.260	-0.517	0.200	0.673	0.904	0.177	10.25	1.004	-0.497	-0.168	0.678	0.901	0.181
4.07	0.256	-0.630	0.222	0.834	0.967	0.190	10.26	1.027	-0.604	-0.183	0.823	0.868	0.189
6.11	0.455	0.022	0.011	-	-	-	12.24	0.992	0.051	-0.112	-	-	-
6.11	0.456	0.008	0.013	-	-	-	12.25	1.008	0.031	-0.082	-	-	-
6.12	0.471	-0.050	0.051	0.087	0.929	0.073	12.26	1.048	-0.021	-0.066	0.084	0.942	0.084
6.12	0.483	-0.121	0.076	0.179	0.748	0.109	12.28	1.095	-0.082	-0.046	0.161	0.750	0.109
6.12	0.493	-0.227	0.113	0.309	0.647	0.136	12.28	1.150	-0.188	-0.022	0.304	0.645	0.136
6.12	0.500	-0.400	0.168	0.533	0.448	0.165	12.30	1.217	-0.348	-0.092	0.527	0.547	0.165
6.12	0.502	-0.530	0.202	0.694	0.998	0.179	12.31	1.267	-0.473	-0.093	0.671	0.901	0.182
6.11	0.502	-0.640	0.227	0.837	0.965	0.189	12.32	1.301	-0.574	-0.118	0.797	0.871	0.191

Propellers removed

TABLE VI.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; FLAPS UP -- Continued

(b) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$; Negative thrust

(b) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$; Negative thrust

[illegible]

(c) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 4^\circ$; Inboard propeller only

[illegible]

TABLE VI.- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; FLAPS UP - Continued

(d) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 4^\circ$; Outboard propeller only

α	C_L	C_D	C_M	T_{cav}	J_{av}	C_{pav}	α	C_L	C_D	C_M	T_{cav}	J_{av}	C_{pav}
2.01	0.099	0.016	0.031	-0.008	1.082	0.001	8.15	0.620	0.030	-0.035	-0.007	1.086	-0.002
2.02	0.097	0.019	0.030	-0.009	1.082	0.001	8.16	0.627	0.033	-0.040	-0.007	1.086	-0.002
2.03	0.096	0.022	0.030	-0.010	1.082	0.001	8.16	0.634	0.036	-0.044	-0.007	1.086	-0.002
2.04	0.094	0.025	0.030	-0.011	1.082	0.001	8.16	0.641	0.039	-0.048	-0.007	1.086	-0.002
2.05	0.092	0.028	0.030	-0.012	1.082	0.001	8.16	0.648	0.042	-0.052	-0.007	1.086	-0.002
2.06	0.090	0.031	0.030	-0.013	1.082	0.001	8.16	0.655	0.045	-0.056	-0.007	1.086	-0.002
2.07	0.088	0.034	0.030	-0.014	1.082	0.001	8.16	0.662	0.048	-0.060	-0.007	1.086	-0.002
2.08	0.086	0.037	0.030	-0.015	1.082	0.001	8.16	0.669	0.051	-0.064	-0.007	1.086	-0.002
2.09	0.084	0.040	0.030	-0.016	1.082	0.001	8.16	0.676	0.054	-0.068	-0.007	1.086	-0.002
2.10	0.082	0.043	0.030	-0.017	1.082	0.001	8.16	0.683	0.057	-0.072	-0.007	1.086	-0.002
2.11	0.080	0.046	0.030	-0.018	1.082	0.001	8.16	0.690	0.060	-0.076	-0.007	1.086	-0.002
2.12	0.078	0.049	0.030	-0.019	1.082	0.001	8.16	0.697	0.063	-0.080	-0.007	1.086	-0.002
2.13	0.076	0.052	0.030	-0.020	1.082	0.001	8.16	0.704	0.066	-0.084	-0.007	1.086	-0.002
2.14	0.074	0.055	0.030	-0.021	1.082	0.001	8.16	0.711	0.069	-0.088	-0.007	1.086	-0.002
2.15	0.072	0.058	0.030	-0.022	1.082	0.001	8.16	0.718	0.072	-0.092	-0.007	1.086	-0.002
2.16	0.070	0.061	0.030	-0.023	1.082	0.001	8.16	0.725	0.075	-0.096	-0.007	1.086	-0.002
2.17	0.068	0.064	0.030	-0.024	1.082	0.001	8.16	0.732	0.078	-0.100	-0.007	1.086	-0.002
2.18	0.066	0.067	0.030	-0.025	1.082	0.001	8.16	0.739	0.081	-0.104	-0.007	1.086	-0.002
2.19	0.064	0.070	0.030	-0.026	1.082	0.001	8.16	0.746	0.084	-0.108	-0.007	1.086	-0.002
2.20	0.062	0.073	0.030	-0.027	1.082	0.001	8.16	0.753	0.087	-0.112	-0.007	1.086	-0.002
2.21	0.060	0.076	0.030	-0.028	1.082	0.001	8.16	0.760	0.090	-0.116	-0.007	1.086	-0.002
2.22	0.058	0.079	0.030	-0.029	1.082	0.001	8.16	0.767	0.093	-0.120	-0.007	1.086	-0.002
2.23	0.056	0.082	0.030	-0.030	1.082	0.001	8.16	0.774	0.096	-0.124	-0.007	1.086	-0.002
2.24	0.054	0.085	0.030	-0.031	1.082	0.001	8.16	0.781	0.099	-0.128	-0.007	1.086	-0.002
2.25	0.052	0.088	0.030	-0.032	1.082	0.001	8.16	0.788	0.102	-0.132	-0.007	1.086	-0.002
2.26	0.050	0.091	0.030	-0.033	1.082	0.001	8.16	0.795	0.105	-0.136	-0.007	1.086	-0.002
2.27	0.048	0.094	0.030	-0.034	1.082	0.001	8.16	0.802	0.108	-0.140	-0.007	1.086	-0.002
2.28	0.046	0.097	0.030	-0.035	1.082	0.001	8.16	0.809	0.111	-0.144	-0.007	1.086	-0.002
2.29	0.044	0.100	0.030	-0.036	1.082	0.001	8.16	0.816	0.114	-0.148	-0.007	1.086	-0.002
2.30	0.042	0.103	0.030	-0.037	1.082	0.001	8.16	0.823	0.117	-0.152	-0.007	1.086	-0.002
2.31	0.040	0.106	0.030	-0.038	1.082	0.001	8.16	0.830	0.120	-0.156	-0.007	1.086	-0.002
2.32	0.038	0.109	0.030	-0.039	1.082	0.001	8.16	0.837	0.123	-0.160	-0.007	1.086	-0.002
2.33	0.036	0.112	0.030	-0.040	1.082	0.001	8.16	0.844	0.126	-0.164	-0.007	1.086	-0.002
2.34	0.034	0.115	0.030	-0.041	1.082	0.001	8.16	0.851	0.129	-0.168	-0.007	1.086	-0.002
2.35	0.032	0.118	0.030	-0.042	1.082	0.001	8.16	0.858	0.132	-0.172	-0.007	1.086	-0.002
2.36	0.030	0.121	0.030	-0.043	1.082	0.001	8.16	0.865	0.135	-0.176	-0.007	1.086	-0.002
2.37	0.028	0.124	0.030	-0.044	1.082	0.001	8.16	0.872	0.138	-0.180	-0.007	1.086	-0.002
2.38	0.026	0.127	0.030	-0.045	1.082	0.001	8.16	0.879	0.141	-0.184	-0.007	1.086	-0.002
2.39	0.024	0.130	0.030	-0.046	1.082	0.001	8.16	0.886	0.144	-0.188	-0.007	1.086	-0.002
2.40	0.022	0.133	0.030	-0.047	1.082	0.001	8.16	0.893	0.147	-0.192	-0.007	1.086	-0.002
2.41	0.020	0.136	0.030	-0.048	1.082	0.001	8.16	0.900	0.150	-0.196	-0.007	1.086	-0.002
2.42	0.018	0.139	0.030	-0.049	1.082	0.001	8.16	0.907	0.153	-0.200	-0.007	1.086	-0.002
2.43	0.016	0.142	0.030	-0.050	1.082	0.001	8.16	0.914	0.156	-0.204	-0.007	1.086	-0.002
2.44	0.014	0.145	0.030	-0.051	1.082	0.001	8.16	0.921	0.159	-0.208	-0.007	1.086	-0.002
2.45	0.012	0.148	0.030	-0.052	1.082	0.001	8.16	0.928	0.162	-0.212	-0.007	1.086	-0.002
2.46	0.010	0.151	0.030	-0.053	1.082	0.001	8.16	0.935	0.165	-0.216	-0.007	1.086	-0.002
2.47	0.008	0.154	0.030	-0.054	1.082	0.001	8.16	0.942	0.168	-0.220	-0.007	1.086	-0.002
2.48	0.006	0.157	0.030	-0.055	1.082	0.001	8.16	0.949	0.171	-0.224	-0.007	1.086	-0.002
2.49	0.004	0.160	0.030	-0.056	1.082	0.001	8.16	0.956	0.174	-0.228	-0.007	1.086	-0.002
2.50	0.002	0.163	0.030	-0.057	1.082	0.001	8.16	0.963	0.177	-0.232	-0.007	1.086	-0.002
2.51	0.000	0.166	0.030	-0.058	1.082	0.001	8.16	0.970	0.180	-0.236	-0.007	1.086	-0.002
2.52	-0.002	0.169	0.030	-0.059	1.082	0.001	8.16	0.977	0.183	-0.240	-0.007	1.086	-0.002
2.53	-0.004	0.172	0.030	-0.060	1.082	0.001	8.16	0.984	0.186	-0.244	-0.007	1.086	-0.002
2.54	-0.006	0.175	0.030	-0.061	1.082	0.001	8.16	0.991	0.189	-0.248	-0.007	1.086	-0.002
2.55	-0.008	0.178	0.030	-0.062	1.082	0.001	8.16	0.998	0.192	-0.252	-0.007	1.086	-0.002
2.56	-0.010	0.181	0.030	-0.063	1.082	0.001	8.16	1.005	0.195	-0.256	-0.007	1.086	-0.002
2.57	-0.012	0.184	0.030	-0.064	1.082	0.001	8.16	1.012	0.198	-0.260	-0.007	1.086	-0.002
2.58	-0.014	0.187	0.030	-0.065	1.082	0.001	8.16	1.019	0.201	-0.264	-0.007	1.086	-0.002
2.59	-0.016	0.190	0.030	-0.066	1.082	0.001	8.16	1.026	0.204	-0.268	-0.007	1.086	-0.002
2.60	-0.018	0.193	0.030	-0.067	1.082	0.001	8.16	1.033	0.207	-0.272	-0.007	1.086	-0.002
2.61	-0.020	0.196	0.030	-0.068	1.082	0.001	8.16	1.040	0.210	-0.276	-0.007	1.086	-0.002
2.62	-0.022	0.199	0.030	-0.069	1.082	0.001	8.16	1.047	0.213	-0.280	-0.007	1.086	-0.002
2.63	-0.024	0.202	0.030	-0.070	1.082	0.001	8.16	1.054	0.216	-0.284	-0.007	1.086	-0.002
2.64	-0.026	0.205	0.030	-0.071	1.082	0.001	8.16	1.061	0.219	-0.288	-0.007	1.086	-0.002
2.65	-0.028	0.208	0.030	-0.072	1.082	0.001	8.16	1.068	0.222	-0.292	-0.007	1.086	-0.002
2.66	-0.030	0.211	0.030	-0.073	1.082	0.001	8.16	1.075	0.225	-0.296	-0.007	1.086	-0.002
2.67	-0.032	0.214	0.030	-0.074	1.082	0.001	8.16	1.082	0.228	-0.300	-0.007	1.086	-0.002
2.68	-0.034	0.217	0.030	-0.075	1.082	0.001	8.16	1.089	0.231	-0.304	-0.007	1.086	-0.002
2.69	-0.036	0.220	0.030	-0.076	1.082	0.001	8.16	1.096	0.234	-0.308	-0.007	1.086	-0.002
2.70	-0.038	0.223	0.030	-0.077	1.082	0.001	8.16	1.103	0.237	-0.312	-0.007	1.086	-0.002
2.71	-0.040	0.226	0.030	-0.078	1.082	0.001	8.16	1.110	0.240	-0.316	-0.007	1.086	-0.002
2.72	-0.042	0.229	0.030	-0.079	1.082	0.001	8.16	1.117	0.243	-0.320	-0.007	1.086	-0.002
2.73	-0.044	0.232	0.030	-0.080	1.082	0.001	8.16	1.124	0.246	-0.324	-0.007	1.086	-0.002
2.74	-0.046	0.235	0.030	-0.081	1.082	0.001	8.16	1.131	0.249	-0.328	-0.007	1.086	-0.002
2.75	-0.048	0.238	0.030	-0.082	1.082	0.001	8.16	1.138	0.252	-0.332	-0.007	1.086	-0.002
2.76	-0.050	0.241	0.030	-0.083	1.082	0.001	8.16	1.145	0.255	-0.336	-0.007	1.086	-0.002
2.77	-0.052	0.244	0.030	-0.084	1.082	0.001	8.16	1.152	0.258	-0.340	-0.007	1.086	-0.002
2.78	-0.054	0.247	0.030	-0.085	1.082	0.001	8.16	1.159	0.261	-0.344	-0.007	1.086	-0.002
2.79	-0.056	0.250	0.030	-0.086	1.082	0.001	8.16	1.166	0.264	-0.348	-0.007	1.086	-0.002
2.80	-0.058	0.253	0.030	-0.087	1.082	0.001	8.16	1.173	0.267	-0.352	-0.007	1.086	-0.002
2.81	-0.060	0.256	0.030	-0.088	1.082	0.001	8.16	1.180	0.270	-0.356	-0.007	1.086	-0.002
2.82	-0.062	0.259	0.030	-0.089	1.082	0.001	8.16	1.187	0.273	-0.360	-0.007	1.086	-0.002
2.83	-0.064	0.262	0.030	-0.090	1.082	0.001	8.16	1.194	0.276	-0.364	-0.007	1.086	-0.002
2.84	-0.066	0.265	0.030	-0.091	1.0								

TABLE VI.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; FLAPS UP -- Continued

(f) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -8^\circ$

α	C_L	C_X	C_m	T_{cav}	J_{av}	$C_{p_{av}}$	α	C_L	C_X	C_m	T_{cav}	J_{av}	$C_{p_{av}}$
2.00	0.046	0.019	0.234	-	-	-	8.14	0.293	0.029	0.097	-	-	-
2.00	0.045	0.024	0.218	-0.007	1.081	0.001	8.14	0.294	0.033	0.110	-0.006	1.082	0.002
2.00	0.040	0.013	0.238	0.038	0.947	0.047	8.14	0.297	0.003	0.134	0.038	0.950	0.031
2.00	0.032	0.027	0.247	0.093	0.848	0.107	8.14	0.314	0.048	0.150	0.092	0.850	0.085
2.00	0.019	0.023	0.263	0.172	0.790	0.177	8.15	0.338	0.116	0.167	0.176	0.746	0.173
2.00	0.005	0.025	0.288	0.306	0.651	0.335	8.16	0.358	0.209	0.286	0.296	0.594	0.296
1.99	-0.019	0.394	0.386	0.253	0.551	0.183	8.16	0.378	0.305	0.286	0.288	0.570	0.182
1.98	-0.050	0.645	0.365	0.289	0.467	0.191	8.16	0.402	0.627	0.380	0.352	0.467	0.184
4.05	0.227	0.080	0.172	-	-	-	8.10	0.18	0.076	0.098	-	-	-
4.05	0.231	0.081	0.170	0.006	1.082	0.001	10.18	0.754	0.041	0.078	-0.003	1.083	0.005
4.05	0.232	0.081	0.177	0.038	0.949	0.046	10.19	0.780	0.044	0.095	0.040	0.945	0.043
4.05	0.231	0.080	0.212	0.096	0.815	0.107	10.20	0.806	0.036	0.123	0.092	0.848	0.081
4.05	0.231	0.125	0.232	0.176	0.749	0.176	10.20	0.842	0.100	0.132	0.170	0.748	0.114
4.05	0.227	0.223	0.263	0.303	0.547	0.339	10.21	0.875	0.203	0.198	0.304	0.468	0.145
4.05	0.215	0.403	0.307	0.339	0.547	0.185	10.22	0.913	0.374	0.273	0.299	0.468	0.101
4.05	0.203	0.646	0.351	0.384	0.466	0.189	10.22	0.942	0.506	0.334	0.280	0.466	0.185
6.09	0.406	0.023	0.133	-	-	-	12.22	0.909	0.048	0.021	-	-	-
6.09	0.407	0.027	0.146	0.006	1.084	0.002	12.23	0.925	0.043	0.033	-0.003	1.083	0.008
6.09	0.414	0.009	0.160	0.039	0.949	0.045	12.23	0.963	0.015	0.065	0.038	0.946	0.033
6.10	0.424	0.073	0.182	0.093	0.850	0.077	12.24	0.995	0.023	0.085	0.092	0.849	0.081
6.10	0.432	0.206	0.180	0.160	0.747	0.105	12.24	1.040	0.082	0.122	0.165	0.750	0.111
6.11	0.440	0.219	0.240	0.307	0.649	0.135	12.26	1.090	0.189	0.173	0.298	0.647	0.139
6.11	0.450	0.397	0.301	0.536	0.548	0.165	12.28	1.152	0.347	0.290	0.517	0.550	0.183
6.10	0.453	0.634	0.379	0.379	0.467	0.188	12.29	1.158	0.582	0.302	0.467	0.500	0.190
Propellers removed							12.30	1.231	0.582	0.330	0.504	0.468	0.190

Propellers removed

(g) $M = 0.123$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 4^\circ$

α	C_L	C_X	C_m	T_{cav}	J_{av}	$C_{p_{av}}$	α	C_L	C_X	C_m	T_{cav}	J_{av}	$C_{p_{av}}$
2.02	0.103	0.017	0.092	-	-	-	8.16	0.630	0.030	0.028	-	-	-
2.02	0.097	0.025	0.083	-0.009	1.098	0.009	8.16	0.625	0.037	0.026	-0.008	1.092	0.004
2.02	0.095	0.027	0.095	0.024	0.992	0.032	8.16	0.639	0.014	0.007	0.022	0.997	0.011
2.02	0.091	0.037	0.103	0.068	0.894	0.064	8.16	0.653	0.023	0.034	0.066	0.897	0.066
2.02	0.081	0.093	0.120	0.138	0.797	0.096	8.17	0.675	0.078	0.034	0.138	0.795	0.095
2.02	0.065	0.179	0.140	0.250	0.694	0.126	8.18	0.702	0.162	0.063	0.249	0.696	0.128
2.02	0.047	0.317	0.165	0.422	0.598	0.157	8.18	0.724	0.300	0.114	0.427	0.598	0.159
4.07	0.283	0.019	0.090	-	-	-	10.20	0.793	0.040	0.071	-	-	-
4.07	0.283	0.025	0.090	0.008	1.092	0.005	10.20	0.793	0.046	0.071	-0.008	1.095	0.004
4.07	0.280	0.063	0.093	0.023	0.996	0.032	10.20	0.812	0.023	0.030	0.022	0.997	0.033
4.07	0.282	0.033	0.071	0.065	0.899	0.061	10.21	0.841	0.011	0.030	0.067	0.898	0.063
4.07	0.279	0.091	0.093	0.139	0.796	0.095	10.22	0.870	0.058	0.035	0.135	0.797	0.095
4.07	0.277	0.117	0.117	0.251	0.697	0.127	10.23	0.908	0.149	0.068	0.242	0.697	0.132
4.07	0.273	0.311	0.152	0.431	0.597	0.159	10.24	0.949	0.282	0.081	0.417	0.599	0.158
6.11	0.458	0.023	0.077	-	-	-	12.24	0.958	0.053	0.105	-	-	-
6.11	0.455	0.031	0.077	0.008	1.094	0.009	12.24	0.960	0.060	0.093	-0.009	1.102	0.005
6.11	0.460	0.031	0.077	0.025	0.992	0.033	12.25	0.988	0.035	0.084	0.024	0.997	0.036
6.12	0.479	0.045	0.095	0.068	0.894	0.065	12.26	1.027	0.001	0.069	0.069	0.896	0.069
6.12	0.479	0.083	0.068	0.139	0.796	0.093	12.27	1.066	0.049	0.131	0.134	0.800	0.099
6.12	0.469	0.173	0.094	0.251	0.695	0.128	12.28	1.117	0.135	0.016	0.239	0.698	0.133
6.12	0.493	0.306	0.132	0.432	0.598	0.155	12.29	1.182	0.263	0.030	0.406	0.600	0.161
Propellers removed							12.30	1.231	0.263	0.030	0.406	0.600	0.161

Propellers removed

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TABLE VI.- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; FLAPS UP - Continued

(h) $M = 0.123$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$; Negative thrust

α	C_L	C_D	C_{D0}	C_{D1}	C_{D2}	C_{D3}	C_{D4}	C_{D5}	C_{D6}	C_{D7}	C_{D8}	C_{D9}	C_{D10}	C_{D11}	C_{D12}	C_{D13}	C_{D14}	C_{D15}	C_{D16}	C_{D17}	C_{D18}	C_{D19}	C_{D20}	C_{D21}	C_{D22}	C_{D23}	C_{D24}	C_{D25}	C_{D26}	C_{D27}	C_{D28}	C_{D29}	C_{D30}	C_{D31}	C_{D32}	C_{D33}	C_{D34}	C_{D35}	C_{D36}	C_{D37}	C_{D38}	C_{D39}	C_{D40}	C_{D41}	C_{D42}	C_{D43}	C_{D44}	C_{D45}	C_{D46}	C_{D47}	C_{D48}	C_{D49}	C_{D50}	C_{D51}	C_{D52}	C_{D53}	C_{D54}	C_{D55}	C_{D56}	C_{D57}	C_{D58}	C_{D59}	C_{D60}	C_{D61}	C_{D62}	C_{D63}	C_{D64}	C_{D65}	C_{D66}	C_{D67}	C_{D68}	C_{D69}	C_{D70}	C_{D71}	C_{D72}	C_{D73}	C_{D74}	C_{D75}	C_{D76}	C_{D77}	C_{D78}	C_{D79}	C_{D80}	C_{D81}	C_{D82}	C_{D83}	C_{D84}	C_{D85}	C_{D86}	C_{D87}	C_{D88}	C_{D89}	C_{D90}	C_{D91}	C_{D92}	C_{D93}	C_{D94}	C_{D95}	C_{D96}	C_{D97}	C_{D98}	C_{D99}	C_{D100}	C_{D101}	C_{D102}	C_{D103}	C_{D104}	C_{D105}	C_{D106}	C_{D107}	C_{D108}	C_{D109}	C_{D110}	C_{D111}	C_{D112}	C_{D113}	C_{D114}	C_{D115}	C_{D116}	C_{D117}	C_{D118}	C_{D119}	C_{D120}	C_{D121}	C_{D122}	C_{D123}	C_{D124}	C_{D125}	C_{D126}	C_{D127}	C_{D128}	C_{D129}	C_{D130}	C_{D131}	C_{D132}	C_{D133}	C_{D134}	C_{D135}	C_{D136}	C_{D137}	C_{D138}	C_{D139}	C_{D140}	C_{D141}	C_{D142}	C_{D143}	C_{D144}	C_{D145}	C_{D146}	C_{D147}	C_{D148}	C_{D149}	C_{D150}	C_{D151}	C_{D152}	C_{D153}	C_{D154}	C_{D155}	C_{D156}	C_{D157}	C_{D158}	C_{D159}	C_{D160}	C_{D161}	C_{D162}	C_{D163}	C_{D164}	C_{D165}	C_{D166}	C_{D167}	C_{D168}	C_{D169}	C_{D170}	C_{D171}	C_{D172}	C_{D173}	C_{D174}	C_{D175}	C_{D176}	C_{D177}	C_{D178}	C_{D179}	C_{D180}	C_{D181}	C_{D182}	C_{D183}	C_{D184}	C_{D185}	C_{D186}	C_{D187}	C_{D188}	C_{D189}	C_{D190}	C_{D191}	C_{D192}	C_{D193}	C_{D194}	C_{D195}	C_{D196}	C_{D197}	C_{D198}	C_{D199}	C_{D200}	C_{D201}	C_{D202}	C_{D203}	C_{D204}	C_{D205}	C_{D206}	C_{D207}	C_{D208}	C_{D209}	C_{D210}	C_{D211}	C_{D212}	C_{D213}	C_{D214}	C_{D215}	C_{D216}	C_{D217}	C_{D218}	C_{D219}	C_{D220}	C_{D221}	C_{D222}	C_{D223}	C_{D224}	C_{D225}	C_{D226}	C_{D227}	C_{D228}	C_{D229}	C_{D230}	C_{D231}	C_{D232}	C_{D233}	C_{D234}	C_{D235}	C_{D236}	C_{D237}	C_{D238}	C_{D239}	C_{D240}	C_{D241}	C_{D242}	C_{D243}	C_{D244}	C_{D245}	C_{D246}	C_{D247}	C_{D248}	C_{D249}	C_{D250}	C_{D251}	C_{D252}	C_{D253}	C_{D254}	C_{D255}	C_{D256}	C_{D257}	C_{D258}	C_{D259}	C_{D260}	C_{D261}	C_{D262}	C_{D263}	C_{D264}	C_{D265}	C_{D266}	C_{D267}	C_{D268}	C_{D269}	C_{D270}	C_{D271}	C_{D272}	C_{D273}	C_{D274}	C_{D275}	C_{D276}	C_{D277}	C_{D278}	C_{D279}	C_{D280}	C_{D281}	C_{D282}	C_{D283}	C_{D284}	C_{D285}	C_{D286}	C_{D287}	C_{D288}	C_{D289}	C_{D290}	C_{D291}	C_{D292}	C_{D293}	C_{D294}	C_{D295}	C_{D296}	C_{D297}	C_{D298}	C_{D299}	C_{D300}	C_{D301}	C_{D302}	C_{D303}	C_{D304}	C_{D305}	C_{D306}	C_{D307}	C_{D308}	C_{D309}	C_{D310}	C_{D311}	C_{D312}	C_{D313}	C_{D314}	C_{D315}	C_{D316}	C_{D317}	C_{D318}	C_{D319}	C_{D320}	C_{D321}	C_{D322}	C_{D323}	C_{D324}	C_{D325}	C_{D326}	C_{D327}	C_{D328}	C_{D329}	C_{D330}	C_{D331}	C_{D332}	C_{D333}	C_{D334}	C_{D335}	C_{D336}	C_{D337}	C_{D338}	C_{D339}	C_{D340}	C_{D341}	C_{D342}	C_{D343}	C_{D344}	C_{D345}	C_{D346}	C_{D347}	C_{D348}	C_{D349}	C_{D350}	C_{D351}	C_{D352}	C_{D353}	C_{D354}	C_{D355}	C_{D356}	C_{D357}	C_{D358}	C_{D359}	C_{D360}	C_{D361}	C_{D362}	C_{D363}	C_{D364}	C_{D365}	C_{D366}	C_{D367}	C_{D368}	C_{D369}	C_{D370}	C_{D371}	C_{D372}	C_{D373}	C_{D374}	C_{D375}	C_{D376}	C_{D377}	C_{D378}	C_{D379}	C_{D380}	C_{D381}	C_{D382}	C_{D383}	C_{D384}	C_{D385}	C_{D386}	C_{D387}	C_{D388}	C_{D389}	C_{D390}	C_{D391}	C_{D392}	C_{D393}	C_{D394}	C_{D395}	C_{D396}	C_{D397}	C_{D398}	C_{D399}	C_{D400}	C_{D401}	C_{D402}	C_{D403}	C_{D404}	C_{D405}	C_{D406}	C_{D407}	C_{D408}	C_{D409}	C_{D410}	C_{D411}	C_{D412}	C_{D413}	C_{D414}	C_{D415}	C_{D416}	C_{D417}	C_{D418}	C_{D419}	C_{D420}	C_{D421}	C_{D422}	C_{D423}	C_{D424}	C_{D425}	C_{D426}	C_{D427}	C_{D428}	C_{D429}	C_{D430}	C_{D431}	C_{D432}	C_{D433}	C_{D434}	C_{D435}	C_{D436}	C_{D437}	C_{D438}	C_{D439}	C_{D440}	C_{D441}	C_{D442}	C_{D443}	C_{D444}	C_{D445}	C_{D446}	C_{D447}	C_{D448}	C_{D449}	C_{D450}	C_{D451}	C_{D452}	C_{D453}	C_{D454}	C_{D455}	C_{D456}	C_{D457}	C_{D458}	C_{D459}	C_{D460}	C_{D461}	C_{D462}	C_{D463}	C_{D464}	C_{D465}	C_{D466}	C_{D467}	C_{D468}	C_{D469}	C_{D470}	C_{D471}	C_{D472}	C_{D473}	C_{D474}	C_{D475}	C_{D476}	C_{D477}	C_{D478}	C_{D479}	C_{D480}	C_{D481}	C_{D482}	C_{D483}	C_{D484}	C_{D485}	C_{D486}	C_{D487}	C_{D488}	C_{D489}	C_{D490}	C_{D491}	C_{D492}	C_{D493}	C_{D494}	C_{D495}	C_{D496}	C_{D497}	C_{D498}	C_{D499}	C_{D500}	C_{D501}	C_{D502}	C_{D503}	C_{D504}	C_{D505}	C_{D506}	C_{D507}	C_{D508}	C_{D509}	C_{D510}	C_{D511}	C_{D512}	C_{D513}	C_{D514}	C_{D515}	C_{D516}	C_{D517}	C_{D518}	C_{D519}	C_{D520}	C_{D521}	C_{D522}	C_{D523}	C_{D524}	C_{D525}	C_{D526}	C_{D527}	C_{D528}	C_{D529}	C_{D530}	C_{D531}	C_{D532}	C_{D533}	C_{D534}	C_{D535}	C_{D536}	C_{D537}	C_{D538}	C_{D539}	C_{D540}	C_{D541}	C_{D542}	C_{D543}	C_{D544}	C_{D545}	C_{D546}	C_{D547}	C_{D548}	C_{D549}	C_{D550}	C_{D551}	C_{D552}	C_{D553}	C_{D554}	C_{D555}	C_{D556}	C_{D557}	C_{D558}	C_{D559}	C_{D560}	C_{D561}	C_{D562}	C_{D563}	C_{D564}	C_{D565}	C_{D566}	C_{D567}	C_{D568}	C_{D569}	C_{D570}	C_{D571}	C_{D572}	C_{D573}	C_{D574}	C_{D575}	C_{D576}	C_{D577}	C_{D578}	C_{D579}	C_{D580}	C_{D581}	C_{D582}	C_{D583}	C_{D584}	C_{D585}	C_{D586}	C_{D587}	C_{D588}	C_{D589}	C_{D590}	C_{D591}	C_{D592}	C_{D593}	C_{D594}	C_{D595}	C_{D596}	C_{D597}	C_{D598}	C_{D599}	C_{D600}	C_{D601}	C_{D602}	C_{D603}	C_{D604}	C_{D605}	C_{D606}	C_{D607}	C_{D608}	C_{D609}	C_{D610}	C_{D611}	C_{D612}	C_{D613}	C_{D614}	C_{D615}	C_{D616}	C_{D617}	C_{D618}	C_{D619}	C_{D620}	C_{D621}	C_{D622}	C_{D623}	C_{D624}	C_{D625}	C_{D626}	C_{D627}	C_{D628}	C_{D629}	C_{D630}	C_{D631}	C_{D632}	C_{D633}	C_{D634}	C_{D635}	C_{D636}	C_{D637}	C_{D638}	C_{D639}	C_{D640}	C_{D641}	C_{D642}	C_{D643}	C_{D644}	C_{D645}	C_{D646}	C_{D647}	C_{D648}	C_{D649}	C_{D650}	C_{D651}	C_{D652}	C_{D653}	C_{D654}	C_{D655}	C_{D656}	C_{D657}	C_{D658}	C_{D659}	C_{D660}	C_{D661}	C_{D662}	C_{D663}	C_{D664}	C_{D665}	C_{D666}	C_{D667}	C_{D668}	C_{D669}	C_{D670}	C_{D671}	C_{D672}	C_{D673}	C_{D674}	C_{D675}	C_{D676}	C_{D677}	C_{D678}	C_{D679}	C_{D680}	C_{D681}	C_{D682}	C_{D683}	C_{D684}	C_{D685}	C_{D686}	C_{D687}	C_{D688}	C_{D689}	C_{D690}	C_{D691}	C_{D692}	C_{D693}	C_{D694}	C_{D695}	C_{D696}	C_{D697}	C_{D698}	C_{D699}	C_{D700}	C_{D701}	C_{D702}	C_{D703}	C_{D704}	C_{D705}	C_{D706}	C_{D707}	C_{D708}	C_{D709}	C_{D710}	C_{D711}	C_{D712}	C_{D713}	C_{D714}	C_{D715}	C_{D716}	C_{D717}	C_{D718}	C_{D719}	C_{D720}	C_{D721}	C_{D722}	C_{D723}	C_{D724}	C_{D725}	C_{D726}	C_{D727}	C_{D728}	C_{D729}	C_{D730}	C_{D731}	C_{D732}	C_{D733}	C_{D734}	C_{D735}	C_{D736}	C_{D737}	C_{D738}	C_{D739}	C_{D740}	C_{D741}	C_{D742}	C_{D743}	C_{D744}	C_{D745}	C_{D746}	C_{D747}	C_{D748}	C_{D749}	C_{D750}	C_{D751}	C_{D752}	C_{D753}	C_{D754}	C_{D755}	C_{D756}	C_{D757}	C_{D758}	C_{D759}	C_{D760}	C_{D761}	C_{D762}	C_{D763}	C_{D764}	C_{D765}	C_{D766}	C_{D767}	C_{D768}	C_{D769}	C_{D770}	C_{D771}	C_{D772}	C_{D773}	C_{D774}	C_{D775}	C_{D776}	C_{D777}	C_{D778}	C_{D779}	C_{D780}	C_{D781}	C_{D782}	C_{D783}	C_{D784}	C_{D785}	C_{D786}	C_{D787}	C_{D788}	C_{D789}	C_{D790}	C_{D791}	C_{D792}	C_{D793}	C_{D794}	C_{D795}	C_{D796}	C_{D797}	C_{D798}	C_{D799}	C_{D800}	C_{D801}	C_{D802}	C_{D803}	C_{D804}	C_{D805}	C_{D806}	C_{D807}	C_{D808}	C_{D809}	C_{D810}	C_{D811}	C_{D812}	C_{D813}	C_{D814}	C_{D815}	C_{D816}	C_{D817}	C_{D818}	C_{D819}	C_{D820}	C_{D821}	C_{D822}	C_{D823}	C_{D824}	C_{D825}	C_{D826}	C_{D827}	C_{D828}	C_{D829}	C_{D830}	C_{D831}	C_{D832}	C_{D833}	C_{D834}	C_{D835}	C_{D836}	C_{D837}	C_{D838}	C_{D839}	C_{D840}	C_{D841}	C_{D842}	C_{D843}	C_{D844}	C_{D845}	C_{D846}	C_{D847}	C_{D848}	C_{D849}	C_{D850}	C_{D851}	C_{D852}	C_{D853}	C_{D854}	C_{D855}	C_{D856}	C_{D857}	C_{D858}	C_{D859}	C_{D860}	C_{D861}	C_{D862}	C_{D863}	C_{D864}	C_{D865}	C_{D866}	C_{D867}	$C_{D868}</$
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TABLE VI.- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; FLAPS UP - Concluded

(j) $M = 0.123$; $R = 4,000,000$; $\beta = 31^\circ$; $i_t = -4^\circ$

[illegible]

Propellers removed

(k) $M = 0.123$; $R = 4,000,000$; $\beta = 31^\circ$; $i_t = -8^\circ$

α	C_L	C_X	C_m	T_{EAV}	J_{EAV}	$C_{P_{\text{EAV}}}$	α	C_L	C_X	C_m	T_{EAV}	J_{EAV}	$C_{P_{\text{EAV}}}$
2.00	0.061	0.020	0.234	--	--	--	8.14	0.585	0.030	0.103	--	--	--
2.00	0.062	0	0.288	--	-0.021	1.368	8.14	0.582	0.038	0.128	-0.015	1.360	0.089
2.00	0.063	0.008	0.298	0.026	0.024	1.207	8.14	0.598	0.012	0.128	0.024	1.205	0.125
2.00	0.040	-0.038	0.252	0.071	0.161	1.061	8.15	0.637	-0.069	0.157	0.073	1.054	0.104
2.00	0.030	-0.106	0.273	0.182	0.301	0.901	8.15	0.651	-0.137	0.163	0.173	0.917	0.110
1.999	0.034	-0.124	0.304	0.304	0.421	0.755	8.16	0.678	-0.208	0.168	0.308	0.722	0.230
1.999	-0.001	-0.334	0.282	0.461	0.605	0.528	8.16	0.678	-0.322	0.207	0.493	0.686	0.257
4.05	0.248	0.021	0.190	--	--	--	10.18	0.752	0.038	0.066	--	--	--
4.05	0.235	0.029	0.184	-0.009	-0.018	1.361	10.19	0.756	0.045	0.078	-0.014	1.347	-0.012
4.05	0.236	0.02	0.199	0.024	0.054	1.204	10.19	0.776	0.019	0.084	0.027	1.196	0.054
4.06	0.236	-0.043	0.217	0.079	0.144	1.044	10.20	0.806	-0.018	0.117	0.075	1.054	0.094
4.06	0.235	-0.111	0.245	0.164	0.295	0.875	10.20	0.841	-0.083	0.150	0.162	0.899	0.129
4.05	0.232	-0.222	0.281	0.304	0.430	0.720	10.21	0.880	-0.197	0.208	0.310	0.752	0.163
4.05	0.227	-0.337	0.310	0.453	0.666	0.525	10.21	0.907	-0.308	0.268	0.450	0.668	0.197
6.10	0.415	0.064	0.145	--	--	--	12.22	0.913	0.049	0.055	--	--	--
6.09	0.413	0.030	0.144	-0.007	-0.017	1.343	12.23	0.924	0.064	0.067	-0.013	1.347	-0.001
6.10	0.419	0.095	0.162	0.022	0.208	1.202	12.23	0.951	0.089	0.084	0.027	1.196	0.066
6.10	0.408	-0.036	0.187	0.075	0.193	1.053	12.25	0.989	-0.007	0.124	0.075	1.054	0.127
6.11	0.445	-0.104	0.218	0.161	0.300	0.900	12.25	1.039	-0.078	0.152	0.162	0.999	0.098
6.11	0.436	-0.218	0.263	0.300	0.450	0.752	12.26	1.097	-0.170	0.182	0.302	0.753	0.133
6.11	0.451	-0.334	0.300	0.450	0.666	0.525	12.27	1.142	-0.293	0.236	0.441	0.670	0.170
8.10	0.597	0.078	0.064	--	--	--	18.43	1.688	0.046	0.055	--	--	--
8.09	0.595	0.036	0.063	-0.005	-0.015	1.346	18.42	1.696	0.061	0.067	-0.005	1.346	-0.001
8.10	0.610	0.095	0.106	0.025	0.205	1.206	18.42	1.706	0.085	0.080	0.025	1.196	0.066
8.11	0.611	-0.036	0.127	0.075	0.193	1.053	18.31	1.693	0.047	0.124	0.075	1.054	0.127
8.11	0.611	-0.104	0.218	0.161	0.300	0.900	18.32	1.706	-0.078	0.152	0.162	0.999	0.098
8.11	0.611	-0.218	0.263	0.300	0.450	0.752	18.33	1.758	-0.293	0.236	0.441	0.670	0.170
8.11	0.611	-0.334	0.300	0.450	0.666	0.525	18.33	1.688	-0.308	0.268	0.450	0.668	0.197

^aPropellers removed

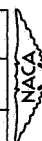


TABLE VII.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.15 b/2; FLAPS UP
M = 0.123; R = 4,000,000; $\beta = 31^\circ$; $i_t = -40^\circ$

α	C_L	C_D	C_m	T_{cav}	J_{av}	$C_{P_{av}}$	α	C_L	C_D	C_m	T_{cav}	J_{av}	$C_{P_{av}}$	α	C_L	C_D	C_m	T_{cav}	J_{av}	$C_{P_{av}}$
2.02	0.093	0.017	0.100	-	-	-	8.15	0.620	0.031	-0.025	-	-	-	14.28	1.116	0.068	-0.147	-	-	-
2.08	0.090	0.025	0.091	-0.009	1.357	-0.016	8.15	0.620	0.041	-0.022	-0.012	1.375	-0.023	14.27	1.116	0.077	-0.118	-0.011	1.376	-0.015
2.12	0.087	0.033	0.083	-0.027	1.158	0.055	8.15	0.631	0.041	-0.022	0.082	1.214	-0.092	14.29	1.151	0.051	-0.106	0.024	1.212	0.061
2.18	0.081	0.043	0.079	-0.079	1.047	0.115	8.16	0.652	0.029	-0.027	0.079	1.047	0.115	14.30	1.200	0.013	-0.086	0.074	1.098	0.126
2.22	0.069	0.056	0.076	-0.136	0.904	0.166	8.17	0.671	0.029	-0.027	0.079	1.047	0.115	14.31	1.253	-0.044	-0.050	0.150	0.912	0.176
2.28	0.054	0.074	0.060	-0.208	0.761	0.216	8.17	0.695	0.029	-0.027	0.079	1.047	0.115	14.31	1.323	-0.134	-0.006	0.274	0.775	0.223
2.34	0.039	0.094	0.046	-0.286	0.617	0.253	8.18	0.716	0.029	-0.027	0.079	1.047	0.115	14.34	1.397	-0.244	0.066	0.422	0.678	0.257
2.40	0.027	0.119	0.031	-0.362	0.467	0.283	8.18	0.735	0.029	-0.027	0.079	1.047	0.115	14.34	1.471	-0.313	0.140	0.566	0.578	0.287
2.46	0.017	0.144	0.016	-0.438	0.317	0.309	8.19	0.754	0.029	-0.027	0.079	1.047	0.115	14.34	1.545	-0.382	0.214	0.710	0.478	0.317
2.52	0.007	0.169	0.001	-0.514	0.171	0.335	8.20	0.773	0.029	-0.027	0.079	1.047	0.115	14.34	1.619	-0.451	0.283	0.854	0.378	0.347
2.58	0.000	0.194	-0.014	-0.590	0.027	0.361	8.21	0.792	0.029	-0.027	0.079	1.047	0.115	14.34	1.693	-0.520	0.352	1.000	0.439	0.377
2.64	-0.007	0.219	-0.029	-0.666	-0.122	0.387	8.22	0.811	0.029	-0.027	0.079	1.047	0.115	14.34	1.767	-0.589	0.421	1.146	0.500	0.407
2.70	-0.014	0.244	-0.044	-0.742	-0.273	0.413	8.23	0.830	0.029	-0.027	0.079	1.047	0.115	14.34	1.841	-0.658	0.490	1.292	0.561	0.437
2.76	-0.021	0.269	-0.059	-0.818	-0.424	0.439	8.24	0.849	0.029	-0.027	0.079	1.047	0.115	14.34	1.915	-0.727	0.559	1.438	0.622	0.467
2.82	-0.028	0.294	-0.074	-0.894	-0.575	0.465	8.25	0.868	0.029	-0.027	0.079	1.047	0.115	14.34	2.000	-0.796	0.628	1.584	0.683	0.497
2.88	-0.035	0.319	-0.089	-0.970	-0.726	0.491	8.26	0.887	0.029	-0.027	0.079	1.047	0.115	14.34	2.074	-0.865	0.697	1.730	0.744	0.527
2.94	-0.042	0.344	-0.104	-1.046	-0.877	0.517	8.27	0.906	0.029	-0.027	0.079	1.047	0.115	14.34	2.148	-0.934	0.766	1.876	0.805	0.557
3.00	-0.049	0.369	-0.119	-1.122	-1.028	0.543	8.28	0.925	0.029	-0.027	0.079	1.047	0.115	14.34	2.222	-1.003	0.835	2.022	0.866	0.587
3.06	-0.056	0.394	-0.134	-1.198	-1.179	0.569	8.29	0.944	0.029	-0.027	0.079	1.047	0.115	14.34	2.296	-1.072	0.904	2.168	0.927	0.617
3.12	-0.063	0.419	-0.149	-1.274	-1.330	0.595	8.30	0.963	0.029	-0.027	0.079	1.047	0.115	14.34	2.370	-1.141	0.973	2.314	0.988	0.647
3.18	-0.070	0.444	-0.164	-1.350	-1.481	0.621	8.31	0.982	0.029	-0.027	0.079	1.047	0.115	14.34	2.444	-1.210	1.042	2.460	1.049	0.677
3.24	-0.077	0.469	-0.179	-1.426	-1.632	0.647	8.32	1.001	0.029	-0.027	0.079	1.047	0.115	14.34	2.518	-1.279	1.111	2.606	1.110	0.707
3.30	-0.084	0.494	-0.194	-1.502	-1.783	0.673	8.33	1.020	0.029	-0.027	0.079	1.047	0.115	14.34	2.592	-1.348	1.180	2.752	1.171	0.737
3.36	-0.091	0.519	-0.209	-1.578	-1.934	0.699	8.34	1.039	0.029	-0.027	0.079	1.047	0.115	14.34	2.666	-1.417	1.249	2.898	1.232	0.767
3.42	-0.098	0.544	-0.224	-1.654	-2.085	0.725	8.35	1.058	0.029	-0.027	0.079	1.047	0.115	14.34	2.740	-1.486	1.318	3.044	1.293	0.797
3.48	-0.105	0.569	-0.239	-1.730	-2.236	0.751	8.36	1.077	0.029	-0.027	0.079	1.047	0.115	14.34	2.814	-1.555	1.387	3.190	1.354	0.827
3.54	-0.112	0.594	-0.254	-1.806	-2.387	0.777	8.37	1.096	0.029	-0.027	0.079	1.047	0.115	14.34	2.888	-1.624	1.456	3.336	1.415	0.857
3.60	-0.119	0.619	-0.269	-1.882	-2.538	0.803	8.38	1.115	0.029	-0.027	0.079	1.047	0.115	14.34	2.962	-1.693	1.525	3.482	1.476	0.887
3.66	-0.126	0.644	-0.284	-1.958	-2.689	0.829	8.39	1.134	0.029	-0.027	0.079	1.047	0.115	14.34	3.036	-1.762	1.594	3.628	1.537	0.917
3.72	-0.133	0.669	-0.299	-2.034	-2.840	0.855	8.40	1.153	0.029	-0.027	0.079	1.047	0.115	14.34	3.110	-1.831	1.663	3.774	1.598	0.947
3.78	-0.140	0.694	-0.314	-2.110	-2.991	0.881	8.41	1.172	0.029	-0.027	0.079	1.047	0.115	14.34	3.184	-1.900	1.732	3.920	1.659	0.977
3.84	-0.147	0.719	-0.329	-2.186	-3.142	0.907	8.42	1.191	0.029	-0.027	0.079	1.047	0.115	14.34	3.258	-1.969	1.801	4.066	1.720	1.007
3.90	-0.154	0.744	-0.344	-2.262	-3.293	0.933	8.43	1.210	0.029	-0.027	0.079	1.047	0.115	14.34	3.332	-2.038	1.870	4.212	1.781	1.037
3.96	-0.161	0.769	-0.359	-2.338	-3.444	0.959	8.44	1.229	0.029	-0.027	0.079	1.047	0.115	14.34	3.406	-2.107	1.941	4.358	1.842	1.067
4.02	-0.168	0.794	-0.374	-2.414	-3.595	0.985	8.45	1.248	0.029	-0.027	0.079	1.047	0.115	14.34	3.480	-2.176	2.010	4.504	1.903	1.097
4.08	-0.175	0.819	-0.389	-2.490	-3.746	1.011	8.46	1.267	0.029	-0.027	0.079	1.047	0.115	14.34	3.554	-2.245	2.081	4.650	1.964	1.127
4.14	-0.182	0.844	-0.404	-2.566	-3.897	1.037	8.47	1.286	0.029	-0.027	0.079	1.047	0.115	14.34	3.628	-2.314	2.150	4.796	2.025	1.157
4.20	-0.189	0.869	-0.419	-2.642	-4.048	1.063	8.48	1.305	0.029	-0.027	0.079	1.047	0.115	14.34	3.702	-2.383	2.219	4.942	2.086	1.187
4.26	-0.196	0.894	-0.434	-2.718	-4.199	1.089	8.49	1.324	0.029	-0.027	0.079	1.047	0.115	14.34	3.776	-2.452	2.288	5.088	2.147	1.217
4.32	-0.203	0.919	-0.449	-2.794	-4.350	1.115	8.50	1.343	0.029	-0.027	0.079	1.047	0.115	14.34	3.850	-2.521	2.357	5.234	2.208	1.247
4.38	-0.210	0.944	-0.464	-2.870	-4.501	1.141	8.51	1.362	0.029	-0.027	0.079	1.047	0.115	14.34	3.924	-2.590	2.426	5.380	2.269	1.277
4.44	-0.217	0.969	-0.479	-2.946	-4.652	1.167	8.52	1.381	0.029	-0.027	0.079	1.047	0.115	14.34	4.000	-2.659	2.495	5.526	2.330	1.307
4.50	-0.224	0.994	-0.494	-3.022	-4.803	1.193	8.53	1.400	0.029	-0.027	0.079	1.047	0.115	14.34	4.074	-2.728	2.564	5.672	2.391	1.337
4.56	-0.231	1.019	-0.509	-3.098	-4.954	1.219	8.54	1.419	0.029	-0.027	0.079	1.047	0.115	14.34	4.148	-2.797	2.633	5.818	2.452	1.367
4.62	-0.238	1.044	-0.524	-3.174	-5.105	1.245	8.55	1.438	0.029	-0.027	0.079	1.047	0.115	14.34	4.222	-2.866	2.702	5.964	2.513	1.397
4.68	-0.245	1.069	-0.539	-3.250	-5.256	1.271	8.56	1.457	0.029	-0.027	0.079	1.047	0.115	14.34	4.296	-2.935	2.771	6.110	2.574	1.427
4.74	-0.252	1.094	-0.554	-3.326	-5.407	1.297	8.57	1.476	0.029	-0.027	0.079	1.047	0.115	14.34	4.370	-3.004	2.840	6.256	2.635	1.457
4.80	-0.259	1.119	-0.569	-3.402	-5.558	1.323	8.58	1.495	0.029	-0.027	0.079	1.047	0.115	14.34	4.444	-3.073	2.909	6.402	2.696	1.487
4.86	-0.266	1.144	-0.584	-3.478	-5.709	1.349	8.59	1.514	0.029	-0.027	0.079	1.047	0.115	14.34	4.518	-3.142	2.978	6.548	2.757	1.517
4.92	-0.273	1.169	-0.599	-3.554	-5.860	1.375	8.60	1.533	0.029	-0.027	0.079	1.047	0.115	14.34	4.592	-3.211	3.047	6.694	2.818	1.547
4.98	-0.280	1.194	-0.614	-3.630	-6.011	1.401	8.61	1.552	0.029	-0.027	0.079	1.047	0.115	14.34	4.666	-3.280	3.116	6.840	2.879	1.577
5.04	-0.287	1.219	-0.629	-3.706	-6.162	1.427	8.62	1.571	0.029	-0.027	0.079	1.047	0.115	14.34	4.740	-3.349	3.185	6.986	2.940	1.607
5.10	-0.294	1.244	-0.644	-3.782	-6.313	1.453	8.63	1.590	0.029	-0.027	0.079	1.047	0.115	14.34	4.814	-3.418	3.254	7.132	2.999	1.637
5.16	-0.301	1.269	-0.659	-3.858	-6.464	1.479	8.64	1.609	0.029	-0.027	0.079	1.047	0.115	14.34	4.888	-3.487	3.323	7.278	3.060	1.667
5.22	-0.308	1.294	-0.674	-3.934	-6.615	1.505	8.65	1.628	0.029	-0.027	0.079	1.047	0.115	14.34	4.962	-3.556	3.392	7.424	3.121	1.697
5.28	-0.315	1.319	-0.689	-4.010	-6.766	1.531	8.66	1.647	0.029	-0.027	0.079	1.047	0.115	14.34	5.036	-3.625	3.461	7.570	3.182	1.727
5.34	-0.32																			

TABLE VIII.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; INBOARD FLAPS DEFLECTED 30° - Continued
(b) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; Inboard propeller only

α	C_L	C_X	C_m	T_c	J	C_p	α	C_L	C_X	C_m	T_c	J	C_p
2.18	0.944	0.037	-0.015	-0.001	1.073	0.012	8.31	1.024	0.068	0.071	-0.004	1.071	0.013
2.19	0.955	0.036	-0.015	-0.001	1.073	0.012	8.31	1.046	0.071	0.071	-0.004	1.071	0.013
2.20	0.969	0.035	-0.015	-0.001	1.073	0.012	8.31	1.074	0.073	0.073	-0.004	1.071	0.013
2.21	0.983	0.034	-0.015	-0.001	1.073	0.012	8.31	1.107	0.074	0.074	-0.004	1.071	0.013
2.22	0.997	0.033	-0.015	-0.001	1.073	0.012	8.31	1.148	0.075	0.075	-0.004	1.071	0.013
2.23	1.011	0.032	-0.015	-0.001	1.073	0.012	8.31	1.192	0.076	0.076	-0.004	1.071	0.013
2.24	1.025	0.031	-0.015	-0.001	1.073	0.012	8.31	1.240	0.077	0.077	-0.004	1.071	0.013
2.25	1.039	0.030	-0.015	-0.001	1.073	0.012	8.31	1.292	0.078	0.078	-0.004	1.071	0.013
2.26	1.053	0.029	-0.015	-0.001	1.073	0.012	8.31	1.348	0.079	0.079	-0.004	1.071	0.013
2.27	1.067	0.028	-0.015	-0.001	1.073	0.012	8.31	1.408	0.080	0.080	-0.004	1.071	0.013
2.28	1.081	0.027	-0.015	-0.001	1.073	0.012	8.31	1.472	0.081	0.081	-0.004	1.071	0.013
2.29	1.095	0.026	-0.015	-0.001	1.073	0.012	8.31	1.540	0.082	0.082	-0.004	1.071	0.013
2.30	1.109	0.025	-0.015	-0.001	1.073	0.012	8.31	1.612	0.083	0.083	-0.004	1.071	0.013
2.31	1.123	0.024	-0.015	-0.001	1.073	0.012	8.31	1.688	0.084	0.084	-0.004	1.071	0.013
2.32	1.137	0.023	-0.015	-0.001	1.073	0.012	8.31	1.768	0.085	0.085	-0.004	1.071	0.013
2.33	1.151	0.022	-0.015	-0.001	1.073	0.012	8.31	1.852	0.086	0.086	-0.004	1.071	0.013
2.34	1.165	0.021	-0.015	-0.001	1.073	0.012	8.31	1.940	0.087	0.087	-0.004	1.071	0.013
2.35	1.179	0.020	-0.015	-0.001	1.073	0.012	8.31	2.032	0.088	0.088	-0.004	1.071	0.013
2.36	1.193	0.019	-0.015	-0.001	1.073	0.012	8.31	2.128	0.089	0.089	-0.004	1.071	0.013
2.37	1.207	0.018	-0.015	-0.001	1.073	0.012	8.31	2.228	0.090	0.090	-0.004	1.071	0.013
2.38	1.221	0.017	-0.015	-0.001	1.073	0.012	8.31	2.332	0.091	0.091	-0.004	1.071	0.013
2.39	1.235	0.016	-0.015	-0.001	1.073	0.012	8.31	2.440	0.092	0.092	-0.004	1.071	0.013
2.40	1.249	0.015	-0.015	-0.001	1.073	0.012	8.31	2.552	0.093	0.093	-0.004	1.071	0.013
2.41	1.263	0.014	-0.015	-0.001	1.073	0.012	8.31	2.668	0.094	0.094	-0.004	1.071	0.013
2.42	1.277	0.013	-0.015	-0.001	1.073	0.012	8.31	2.788	0.095	0.095	-0.004	1.071	0.013
2.43	1.291	0.012	-0.015	-0.001	1.073	0.012	8.31	2.912	0.096	0.096	-0.004	1.071	0.013
2.44	1.305	0.011	-0.015	-0.001	1.073	0.012	8.31	3.040	0.097	0.097	-0.004	1.071	0.013
2.45	1.319	0.010	-0.015	-0.001	1.073	0.012	8.31	3.172	0.098	0.098	-0.004	1.071	0.013
2.46	1.333	0.009	-0.015	-0.001	1.073	0.012	8.31	3.308	0.099	0.099	-0.004	1.071	0.013
2.47	1.347	0.008	-0.015	-0.001	1.073	0.012	8.31	3.448	0.100	0.100	-0.004	1.071	0.013
2.48	1.361	0.007	-0.015	-0.001	1.073	0.012	8.31	3.592	0.101	0.101	-0.004	1.071	0.013
2.49	1.375	0.006	-0.015	-0.001	1.073	0.012	8.31	3.740	0.102	0.102	-0.004	1.071	0.013
2.50	1.389	0.005	-0.015	-0.001	1.073	0.012	8.31	3.892	0.103	0.103	-0.004	1.071	0.013
2.51	1.403	0.004	-0.015	-0.001	1.073	0.012	8.31	4.048	0.104	0.104	-0.004	1.071	0.013
2.52	1.417	0.003	-0.015	-0.001	1.073	0.012	8.31	4.208	0.105	0.105	-0.004	1.071	0.013
2.53	1.431	0.002	-0.015	-0.001	1.073	0.012	8.31	4.372	0.106	0.106	-0.004	1.071	0.013
2.54	1.445	0.001	-0.015	-0.001	1.073	0.012	8.31	4.540	0.107	0.107	-0.004	1.071	0.013
2.55	1.459	0.000	-0.015	-0.001	1.073	0.012	8.31	4.712	0.108	0.108	-0.004	1.071	0.013
2.56	1.473	-0.001	-0.015	-0.001	1.073	0.012	8.31	4.888	0.109	0.109	-0.004	1.071	0.013
2.57	1.487	-0.002	-0.015	-0.001	1.073	0.012	8.31	5.068	0.110	0.110	-0.004	1.071	0.013
2.58	1.501	-0.003	-0.015	-0.001	1.073	0.012	8.31	5.252	0.111	0.111	-0.004	1.071	0.013
2.59	1.515	-0.004	-0.015	-0.001	1.073	0.012	8.31	5.440	0.112	0.112	-0.004	1.071	0.013
2.60	1.529	-0.005	-0.015	-0.001	1.073	0.012	8.31	5.632	0.113	0.113	-0.004	1.071	0.013
2.61	1.543	-0.006	-0.015	-0.001	1.073	0.012	8.31	5.828	0.114	0.114	-0.004	1.071	0.013
2.62	1.557	-0.007	-0.015	-0.001	1.073	0.012	8.31	6.028	0.115	0.115	-0.004	1.071	0.013
2.63	1.571	-0.008	-0.015	-0.001	1.073	0.012	8.31	6.232	0.116	0.116	-0.004	1.071	0.013
2.64	1.585	-0.009	-0.015	-0.001	1.073	0.012	8.31	6.440	0.117	0.117	-0.004	1.071	0.013
2.65	1.599	-0.010	-0.015	-0.001	1.073	0.012	8.31	6.652	0.118	0.118	-0.004	1.071	0.013
2.66	1.613	-0.011	-0.015	-0.001	1.073	0.012	8.31	6.868	0.119	0.119	-0.004	1.071	0.013
2.67	1.627	-0.012	-0.015	-0.001	1.073	0.012	8.31	7.088	0.120	0.120	-0.004	1.071	0.013
2.68	1.641	-0.013	-0.015	-0.001	1.073	0.012	8.31	7.312	0.121	0.121	-0.004	1.071	0.013
2.69	1.655	-0.014	-0.015	-0.001	1.073	0.012	8.31	7.540	0.122	0.122	-0.004	1.071	0.013
2.70	1.669	-0.015	-0.015	-0.001	1.073	0.012	8.31	7.772	0.123	0.123	-0.004	1.071	0.013
2.71	1.683	-0.016	-0.015	-0.001	1.073	0.012	8.31	8.008	0.124	0.124	-0.004	1.071	0.013
2.72	1.697	-0.017	-0.015	-0.001	1.073	0.012	8.31	8.248	0.125	0.125	-0.004	1.071	0.013
2.73	1.711	-0.018	-0.015	-0.001	1.073	0.012	8.31	8.492	0.126	0.126	-0.004	1.071	0.013
2.74	1.725	-0.019	-0.015	-0.001	1.073	0.012	8.31	8.740	0.127	0.127	-0.004	1.071	0.013
2.75	1.739	-0.020	-0.015	-0.001	1.073	0.012	8.31	8.992	0.128	0.128	-0.004	1.071	0.013
2.76	1.753	-0.021	-0.015	-0.001	1.073	0.012	8.31	9.248	0.129	0.129	-0.004	1.071	0.013
2.77	1.767	-0.022	-0.015	-0.001	1.073	0.012	8.31	9.508	0.130	0.130	-0.004	1.071	0.013
2.78	1.781	-0.023	-0.015	-0.001	1.073	0.012	8.31	9.772	0.131	0.131	-0.004	1.071	0.013
2.79	1.795	-0.024	-0.015	-0.001	1.073	0.012	8.31	10.040	0.132	0.132	-0.004	1.071	0.013
2.80	1.809	-0.025	-0.015	-0.001	1.073	0.012	8.31	10.312	0.133	0.133	-0.004	1.071	0.013
2.81	1.823	-0.026	-0.015	-0.001	1.073	0.012	8.31	10.588	0.134	0.134	-0.004	1.071	0.013
2.82	1.837	-0.027	-0.015	-0.001	1.073	0.012	8.31	10.868	0.135	0.135	-0.004	1.071	0.013
2.83	1.851	-0.028	-0.015	-0.001	1.073	0.012	8.31	11.152	0.136	0.136	-0.004	1.071	0.013
2.84	1.865	-0.029	-0.015	-0.001	1.073	0.012	8.31	11.440	0.137	0.137	-0.004	1.071	0.013
2.85	1.879	-0.030	-0.015	-0.001	1.073	0.012	8.31	11.732	0.138	0.138	-0.004	1.071	0.013
2.86	1.893	-0.031	-0.015	-0.001	1.073	0.012	8.31	12.028	0.139	0.139	-0.004	1.071	0.013
2.87	1.907	-0.032	-0.015	-0.001	1.073	0.012	8.31	12.328	0.140	0.140	-0.004	1.071	0.013
2.88	1.921	-0.033	-0.015	-0.001	1.073	0.012	8.31	12.632	0.141	0.141	-0.004	1.071	0.013
2.89	1.935	-0.034	-0.015	-0.001	1.073	0.012	8.31	12.940	0.142	0.142	-0.004	1.071	0.013
2.90	1.949	-0.035	-0.015	-0.001	1.073	0.012	8.31	13.252	0.143	0.143	-0.004	1.071	0.013
2.91	1.963	-0.036	-0.015	-0.001	1.073	0.012	8.31	13.568	0.144	0.144	-0.004	1.071	0.013
2.92	1.977	-0.037	-0.015	-0.001	1.073	0.012	8.31	13.888	0.145	0.145	-0.004	1.071	0.013
2.93	1.991	-0.038	-0.015	-0.001	1.073	0.012	8.31	14.212	0.146	0.146	-0.004	1.071	0.013
2.94	2.005	-0.039	-0.015	-0.001	1.073	0.012	8.31	14.540	0.147	0.147	-0.004	1.071	0.013
2.95	2.019	-0.040	-0.015	-0.001	1.073	0.012	8.31	14.872	0.148	0.148	-0.004	1.071	0.013
2.96	2.033	-0.041	-0.015	-0.001	1.073	0.012	8.31	15.208	0.149	0.149	-0.004	1.071	0.013
2.97	2.047	-0.042	-0.015	-0.001	1.073	0.012	8.31	15.548	0.150	0.150	-0.004	1.071	0.013
2.98	2.061	-0.043	-0.015	-0.001	1.073	0.012	8.31	15.892	0.151	0.151	-0.004	1.071	0.013
2.99	2.075	-0.044	-0.015	-0.001	1.073	0.012	8.31	16.240	0.152	0.152	-0.004	1.071	0.013
3.00	2.089	-0.045	-0.015	-0.001	1.073	0.012	8.31	16.592	0.153	0.153	-0.004	1.071	0.013
3.01	2.103	-0.046	-0.015	-0.001	1.073	0.012	8.31						

TABLE VIII.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; INBOARD FLAPS DEFLECTED 30° - Concluded

(d) $M = 0.082$; $R = 4,000,000$; $\beta = 31^\circ$

α	C_L	C_X	C_m	$T_{C_{av}}$	T_{av}	$C_{P_{av}}$	α	C_L	C_X	C_m	$T_{C_{av}}$	T_{av}	$C_{P_{av}}$	α	C_L	C_X	C_m	$T_{C_{av}}$	T_{av}	$C_{P_{av}}$
2.18	0.544	0.037	-0.015	-0.013	-0.013	0.007	8.30	1.024	0.068	0.036	-0.008	-0.008	0.007	8.30	1.024	0.068	0.036	-0.008	-0.008	0.007
2.19	0.548	0.047	-0.021	-0.018	-0.018	0.007	8.31	1.041	0.071	0.039	-0.008	-0.008	0.007	8.31	1.041	0.071	0.039	-0.008	-0.008	0.007
2.20	0.552	0.057	-0.027	-0.024	-0.024	0.007	8.32	1.058	0.074	0.042	-0.009	-0.009	0.007	8.32	1.058	0.074	0.042	-0.009	-0.009	0.007
2.21	0.556	0.067	-0.033	-0.030	-0.030	0.007	8.33	1.075	0.077	0.045	-0.009	-0.009	0.007	8.33	1.075	0.077	0.045	-0.009	-0.009	0.007
2.22	0.560	0.077	-0.039	-0.036	-0.036	0.007	8.34	1.092	0.080	0.048	-0.010	-0.010	0.007	8.34	1.092	0.080	0.048	-0.010	-0.010	0.007
2.23	0.564	0.087	-0.045	-0.042	-0.042	0.007	8.35	1.109	0.083	0.051	-0.010	-0.010	0.007	8.35	1.109	0.083	0.051	-0.010	-0.010	0.007
2.24	0.568	0.097	-0.051	-0.048	-0.048	0.007	8.36	1.126	0.086	0.054	-0.011	-0.011	0.007	8.36	1.126	0.086	0.054	-0.011	-0.011	0.007
2.25	0.572	0.107	-0.057	-0.054	-0.054	0.007	8.37	1.143	0.089	0.057	-0.011	-0.011	0.007	8.37	1.143	0.089	0.057	-0.011	-0.011	0.007
2.26	0.576	0.117	-0.063	-0.060	-0.060	0.007	8.38	1.160	0.092	0.060	-0.012	-0.012	0.007	8.38	1.160	0.092	0.060	-0.012	-0.012	0.007
2.27	0.580	0.127	-0.069	-0.066	-0.066	0.007	8.39	1.177	0.095	0.063	-0.012	-0.012	0.007	8.39	1.177	0.095	0.063	-0.012	-0.012	0.007
2.28	0.584	0.137	-0.075	-0.072	-0.072	0.007	8.40	1.194	0.098	0.066	-0.013	-0.013	0.007	8.40	1.194	0.098	0.066	-0.013	-0.013	0.007
2.29	0.588	0.147	-0.081	-0.078	-0.078	0.007	8.41	1.211	0.101	0.069	-0.013	-0.013	0.007	8.41	1.211	0.101	0.069	-0.013	-0.013	0.007
2.30	0.592	0.157	-0.087	-0.084	-0.084	0.007	8.42	1.228	0.104	0.072	-0.014	-0.014	0.007	8.42	1.228	0.104	0.072	-0.014	-0.014	0.007
2.31	0.596	0.167	-0.093	-0.090	-0.090	0.007	8.43	1.245	0.107	0.075	-0.014	-0.014	0.007	8.43	1.245	0.107	0.075	-0.014	-0.014	0.007
2.32	0.600	0.177	-0.099	-0.096	-0.096	0.007	8.44	1.262	0.110	0.078	-0.015	-0.015	0.007	8.44	1.262	0.110	0.078	-0.015	-0.015	0.007
2.33	0.604	0.187	-0.105	-0.102	-0.102	0.007	8.45	1.279	0.113	0.081	-0.015	-0.015	0.007	8.45	1.279	0.113	0.081	-0.015	-0.015	0.007
2.34	0.608	0.197	-0.111	-0.108	-0.108	0.007	8.46	1.296	0.116	0.084	-0.016	-0.016	0.007	8.46	1.296	0.116	0.084	-0.016	-0.016	0.007
2.35	0.612	0.207	-0.117	-0.114	-0.114	0.007	8.47	1.313	0.119	0.087	-0.016	-0.016	0.007	8.47	1.313	0.119	0.087	-0.016	-0.016	0.007
2.36	0.616	0.217	-0.123	-0.120	-0.120	0.007	8.48	1.330	0.122	0.090	-0.017	-0.017	0.007	8.48	1.330	0.122	0.090	-0.017	-0.017	0.007
2.37	0.620	0.227	-0.129	-0.126	-0.126	0.007	8.49	1.347	0.125	0.093	-0.017	-0.017	0.007	8.49	1.347	0.125	0.093	-0.017	-0.017	0.007
2.38	0.624	0.237	-0.135	-0.132	-0.132	0.007	8.50	1.364	0.128	0.096	-0.018	-0.018	0.007	8.50	1.364	0.128	0.096	-0.018	-0.018	0.007
2.39	0.628	0.247	-0.141	-0.138	-0.138	0.007	8.51	1.381	0.131	0.099	-0.018	-0.018	0.007	8.51	1.381	0.131	0.099	-0.018	-0.018	0.007
2.40	0.632	0.257	-0.147	-0.144	-0.144	0.007	8.52	1.398	0.134	0.102	-0.019	-0.019	0.007	8.52	1.398	0.134	0.102	-0.019	-0.019	0.007
2.41	0.636	0.267	-0.153	-0.150	-0.150	0.007	8.53	1.415	0.137	0.105	-0.019	-0.019	0.007	8.53	1.415	0.137	0.105	-0.019	-0.019	0.007
2.42	0.640	0.277	-0.159	-0.156	-0.156	0.007	8.54	1.432	0.140	0.108	-0.020	-0.020	0.007	8.54	1.432	0.140	0.108	-0.020	-0.020	0.007
2.43	0.644	0.287	-0.165	-0.162	-0.162	0.007	8.55	1.449	0.143	0.111	-0.020	-0.020	0.007	8.55	1.449	0.143	0.111	-0.020	-0.020	0.007
2.44	0.648	0.297	-0.171	-0.168	-0.168	0.007	8.56	1.466	0.146	0.114	-0.021	-0.021	0.007	8.56	1.466	0.146	0.114	-0.021	-0.021	0.007
2.45	0.652	0.307	-0.177	-0.174	-0.174	0.007	8.57	1.483	0.149	0.117	-0.021	-0.021	0.007	8.57	1.483	0.149	0.117	-0.021	-0.021	0.007
2.46	0.656	0.317	-0.183	-0.180	-0.180	0.007	8.58	1.500	0.152	0.120	-0.022	-0.022	0.007	8.58	1.500	0.152	0.120	-0.022	-0.022	0.007
2.47	0.660	0.327	-0.189	-0.186	-0.186	0.007	8.59	1.517	0.155	0.123	-0.022	-0.022	0.007	8.59	1.517	0.155	0.123	-0.022	-0.022	0.007
2.48	0.664	0.337	-0.195	-0.192	-0.192	0.007	8.60	1.534	0.158	0.126	-0.023	-0.023	0.007	8.60	1.534	0.158	0.126	-0.023	-0.023	0.007
2.49	0.668	0.347	-0.201	-0.198	-0.198	0.007	8.61	1.551	0.161	0.129	-0.023	-0.023	0.007	8.61	1.551	0.161	0.129	-0.023	-0.023	0.007
2.50	0.672	0.357	-0.207	-0.204	-0.204	0.007	8.62	1.568	0.164	0.132	-0.024	-0.024	0.007	8.62	1.568	0.164	0.132	-0.024	-0.024	0.007
2.51	0.676	0.367	-0.213	-0.210	-0.210	0.007	8.63	1.585	0.167	0.135	-0.024	-0.024	0.007	8.63	1.585	0.167	0.135	-0.024	-0.024	0.007
2.52	0.680	0.377	-0.219	-0.216	-0.216	0.007	8.64	1.602	0.170	0.138	-0.025	-0.025	0.007	8.64	1.602	0.170	0.138	-0.025	-0.025	0.007
2.53	0.684	0.387	-0.225	-0.222	-0.222	0.007	8.65	1.619	0.173	0.141	-0.025	-0.025	0.007	8.65	1.619	0.173	0.141	-0.025	-0.025	0.007
2.54	0.688	0.397	-0.231	-0.228	-0.228	0.007	8.66	1.636	0.176	0.144	-0.026	-0.026	0.007	8.66	1.636	0.176	0.144	-0.026	-0.026	0.007
2.55	0.692	0.407	-0.237	-0.234	-0.234	0.007	8.67	1.653	0.179	0.147	-0.026	-0.026	0.007	8.67	1.653	0.179	0.147	-0.026	-0.026	0.007
2.56	0.696	0.417	-0.243	-0.240	-0.240	0.007	8.68	1.670	0.182	0.150	-0.027	-0.027	0.007	8.68	1.670	0.182	0.150	-0.027	-0.027	0.007
2.57	0.700	0.427	-0.249	-0.246	-0.246	0.007	8.69	1.687	0.185	0.153	-0.027	-0.027	0.007	8.69	1.687	0.185	0.153	-0.027	-0.027	0.007
2.58	0.704	0.437	-0.255	-0.252	-0.252	0.007	8.70	1.704	0.188	0.156	-0.028	-0.028	0.007	8.70	1.704	0.188	0.156	-0.028	-0.028	0.007
2.59	0.708	0.447	-0.261	-0.258	-0.258	0.007	8.71	1.721	0.191	0.159	-0.028	-0.028	0.007	8.71	1.721	0.191	0.159	-0.028	-0.028	0.007
2.60	0.712	0.457	-0.267	-0.264	-0.264	0.007	8.72	1.738	0.194	0.162	-0.029	-0.029	0.007	8.72	1.738	0.194	0.162	-0.029	-0.029	0.007
2.61	0.716	0.467	-0.273	-0.270	-0.270	0.007	8.73	1.755	0.197	0.165	-0.029	-0.029	0.007	8.73	1.755	0.197	0.165	-0.029	-0.029	0.007
2.62	0.720	0.477	-0.279	-0.276	-0.276	0.007	8.74	1.772	0.200	0.168	-0.030	-0.030	0.007	8.74	1.772	0.200	0.168	-0.030	-0.030	0.007
2.63	0.724	0.487	-0.285	-0.282	-0.282	0.007	8.75	1.789	0.203	0.171	-0.030	-0.030	0.007	8.75	1.789	0.203	0.171	-0.030	-0.030	0.007
2.64	0.728	0.497	-0.291	-0.288	-0.288	0.007	8.76	1.806	0.206	0.174	-0.031	-0.031	0.007	8.76	1.806	0.206	0.174	-0.031	-0.031	0.007
2.65	0.732	0.507	-0.297	-0.294	-0.294	0.007	8.77	1.823	0.209	0.177	-0.031	-0.031	0.007	8.77	1.823	0.209	0.177	-0.031	-0.031	0.007
2.66	0.736	0.517	-0.303	-0.300	-0.300	0.007	8.78	1.840	0.212	0.180	-0.032	-0.032	0.007	8.78	1.840	0.212	0.180	-0.032	-0.032	0.007
2.67	0.740	0.527	-0.309	-0.306	-0.306	0.007	8.79	1.857	0.215	0.183	-0.032	-0.032	0.007	8.79	1.857	0.215	0.183	-0.032	-0.032	0.007
2.68	0.744	0.537	-0.315	-0.312	-0.312	0.007	8.80	1.874	0.218	0.186	-0.033	-0.033	0.007	8.80	1.874	0.218	0.186	-0.033	-0.033	0.007
2.69	0.748	0.547	-0.321	-0.318	-0.318	0.007	8.81	1.891	0.221	0.189	-0.033	-0.033	0.007	8.81	1.891	0.221	0.189	-0.033	-0.033	0.007
2.70	0.752	0.557	-0.327	-0.324	-0.324	0.007	8.82	1.908	0.224	0.192	-0.034	-0.034	0.007	8.82	1.908	0.224	0.192	-0.034	-0.034	0.007
2.71	0.756	0.567	-0.333	-0.330	-0.330	0.007	8.83	1.925	0.227	0.195	-0.034	-0.034	0.007	8.83	1.925	0.227	0.195	-0.034	-0.034	0.007
2.72	0.760	0.577	-0.339	-0.336	-0.336	0.007	8.84	1.942	0.230	0.198	-0.035	-0.035	0.007	8.84	1.942	0.230	0.198	-0.035	-0.035	0.007
2.73	0.764	0.587	-0.345	-0.342	-0.342	0.007	8.85	1.959	0.233	0.201	-0.035	-0.035	0.007	8.85	1.959	0.233	0.201	-0.035	-0.035	

TABLE IX.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0; INBOARD FLAPS DEFLECTED 30°
(a) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$

α	C_L	C_D	C_m	T_{cav}	J_{cav}	C_{pav}	α	C_L	C_D	C_m	T_{cav}	J_{cav}	C_{pav}
0.18	0.922	0.038	0.033	-0.005	-0.005	-0.005	0.18	1.072	0.072	-0.072	-0.005	-0.005	-0.005
2.19	0.921	0.039	0.048	-0.005	-0.005	-0.005	2.19	1.068	0.074	-0.074	-0.005	-0.005	-0.005
2.20	0.920	0.040	0.050	-0.005	-0.005	-0.005	2.20	1.064	0.076	-0.076	-0.005	-0.005	-0.005
2.21	0.919	0.041	0.052	-0.005	-0.005	-0.005	2.21	1.060	0.078	-0.078	-0.005	-0.005	-0.005
2.22	0.918	0.042	0.054	-0.005	-0.005	-0.005	2.22	1.056	0.080	-0.080	-0.005	-0.005	-0.005
2.23	0.917	0.043	0.056	-0.005	-0.005	-0.005	2.23	1.052	0.082	-0.082	-0.005	-0.005	-0.005
2.24	0.916	0.044	0.058	-0.005	-0.005	-0.005	2.24	1.048	0.084	-0.084	-0.005	-0.005	-0.005
2.25	0.915	0.045	0.060	-0.005	-0.005	-0.005	2.25	1.044	0.086	-0.086	-0.005	-0.005	-0.005
2.26	0.914	0.046	0.062	-0.005	-0.005	-0.005	2.26	1.040	0.088	-0.088	-0.005	-0.005	-0.005
2.27	0.913	0.047	0.064	-0.005	-0.005	-0.005	2.27	1.036	0.090	-0.090	-0.005	-0.005	-0.005
2.28	0.912	0.048	0.066	-0.005	-0.005	-0.005	2.28	1.032	0.092	-0.092	-0.005	-0.005	-0.005
2.29	0.911	0.049	0.068	-0.005	-0.005	-0.005	2.29	1.028	0.094	-0.094	-0.005	-0.005	-0.005
2.30	0.910	0.050	0.070	-0.005	-0.005	-0.005	2.30	1.024	0.096	-0.096	-0.005	-0.005	-0.005
2.31	0.909	0.051	0.072	-0.005	-0.005	-0.005	2.31	1.020	0.098	-0.098	-0.005	-0.005	-0.005
2.32	0.908	0.052	0.074	-0.005	-0.005	-0.005	2.32	1.016	0.100	-0.100	-0.005	-0.005	-0.005
2.33	0.907	0.053	0.076	-0.005	-0.005	-0.005	2.33	1.012	0.102	-0.102	-0.005	-0.005	-0.005
2.34	0.906	0.054	0.078	-0.005	-0.005	-0.005	2.34	1.008	0.104	-0.104	-0.005	-0.005	-0.005
2.35	0.905	0.055	0.080	-0.005	-0.005	-0.005	2.35	1.004	0.106	-0.106	-0.005	-0.005	-0.005
2.36	0.904	0.056	0.082	-0.005	-0.005	-0.005	2.36	1.000	0.108	-0.108	-0.005	-0.005	-0.005
2.37	0.903	0.057	0.084	-0.005	-0.005	-0.005	2.37	0.996	0.110	-0.110	-0.005	-0.005	-0.005
2.38	0.902	0.058	0.086	-0.005	-0.005	-0.005	2.38	0.992	0.112	-0.112	-0.005	-0.005	-0.005
2.39	0.901	0.059	0.088	-0.005	-0.005	-0.005	2.39	0.988	0.114	-0.114	-0.005	-0.005	-0.005
2.40	0.900	0.060	0.090	-0.005	-0.005	-0.005	2.40	0.984	0.116	-0.116	-0.005	-0.005	-0.005
2.41	0.899	0.061	0.092	-0.005	-0.005	-0.005	2.41	0.980	0.118	-0.118	-0.005	-0.005	-0.005
2.42	0.898	0.062	0.094	-0.005	-0.005	-0.005	2.42	0.976	0.120	-0.120	-0.005	-0.005	-0.005
2.43	0.897	0.063	0.096	-0.005	-0.005	-0.005	2.43	0.972	0.122	-0.122	-0.005	-0.005	-0.005
2.44	0.896	0.064	0.098	-0.005	-0.005	-0.005	2.44	0.968	0.124	-0.124	-0.005	-0.005	-0.005
2.45	0.895	0.065	0.100	-0.005	-0.005	-0.005	2.45	0.964	0.126	-0.126	-0.005	-0.005	-0.005
2.46	0.894	0.066	0.102	-0.005	-0.005	-0.005	2.46	0.960	0.128	-0.128	-0.005	-0.005	-0.005
2.47	0.893	0.067	0.104	-0.005	-0.005	-0.005	2.47	0.956	0.130	-0.130	-0.005	-0.005	-0.005
2.48	0.892	0.068	0.106	-0.005	-0.005	-0.005	2.48	0.952	0.132	-0.132	-0.005	-0.005	-0.005
2.49	0.891	0.069	0.108	-0.005	-0.005	-0.005	2.49	0.948	0.134	-0.134	-0.005	-0.005	-0.005
2.50	0.890	0.070	0.110	-0.005	-0.005	-0.005	2.50	0.944	0.136	-0.136	-0.005	-0.005	-0.005
2.51	0.889	0.071	0.112	-0.005	-0.005	-0.005	2.51	0.940	0.138	-0.138	-0.005	-0.005	-0.005
2.52	0.888	0.072	0.114	-0.005	-0.005	-0.005	2.52	0.936	0.140	-0.140	-0.005	-0.005	-0.005
2.53	0.887	0.073	0.116	-0.005	-0.005	-0.005	2.53	0.932	0.142	-0.142	-0.005	-0.005	-0.005
2.54	0.886	0.074	0.118	-0.005	-0.005	-0.005	2.54	0.928	0.144	-0.144	-0.005	-0.005	-0.005
2.55	0.885	0.075	0.120	-0.005	-0.005	-0.005	2.55	0.924	0.146	-0.146	-0.005	-0.005	-0.005
2.56	0.884	0.076	0.122	-0.005	-0.005	-0.005	2.56	0.920	0.148	-0.148	-0.005	-0.005	-0.005
2.57	0.883	0.077	0.124	-0.005	-0.005	-0.005	2.57	0.916	0.150	-0.150	-0.005	-0.005	-0.005
2.58	0.882	0.078	0.126	-0.005	-0.005	-0.005	2.58	0.912	0.152	-0.152	-0.005	-0.005	-0.005
2.59	0.881	0.079	0.128	-0.005	-0.005	-0.005	2.59	0.908	0.154	-0.154	-0.005	-0.005	-0.005
2.60	0.880	0.080	0.130	-0.005	-0.005	-0.005	2.60	0.904	0.156	-0.156	-0.005	-0.005	-0.005
2.61	0.879	0.081	0.132	-0.005	-0.005	-0.005	2.61	0.900	0.158	-0.158	-0.005	-0.005	-0.005
2.62	0.878	0.082	0.134	-0.005	-0.005	-0.005	2.62	0.896	0.160	-0.160	-0.005	-0.005	-0.005
2.63	0.877	0.083	0.136	-0.005	-0.005	-0.005	2.63	0.892	0.162	-0.162	-0.005	-0.005	-0.005
2.64	0.876	0.084	0.138	-0.005	-0.005	-0.005	2.64	0.888	0.164	-0.164	-0.005	-0.005	-0.005
2.65	0.875	0.085	0.140	-0.005	-0.005	-0.005	2.65	0.884	0.166	-0.166	-0.005	-0.005	-0.005
2.66	0.874	0.086	0.142	-0.005	-0.005	-0.005	2.66	0.880	0.168	-0.168	-0.005	-0.005	-0.005
2.67	0.873	0.087	0.144	-0.005	-0.005	-0.005	2.67	0.876	0.170	-0.170	-0.005	-0.005	-0.005
2.68	0.872	0.088	0.146	-0.005	-0.005	-0.005	2.68	0.872	0.172	-0.172	-0.005	-0.005	-0.005
2.69	0.871	0.089	0.148	-0.005	-0.005	-0.005	2.69	0.868	0.174	-0.174	-0.005	-0.005	-0.005
2.70	0.870	0.090	0.150	-0.005	-0.005	-0.005	2.70	0.864	0.176	-0.176	-0.005	-0.005	-0.005
2.71	0.869	0.091	0.152	-0.005	-0.005	-0.005	2.71	0.860	0.178	-0.178	-0.005	-0.005	-0.005
2.72	0.868	0.092	0.154	-0.005	-0.005	-0.005	2.72	0.856	0.180	-0.180	-0.005	-0.005	-0.005
2.73	0.867	0.093	0.156	-0.005	-0.005	-0.005	2.73	0.852	0.182	-0.182	-0.005	-0.005	-0.005
2.74	0.866	0.094	0.158	-0.005	-0.005	-0.005	2.74	0.848	0.184	-0.184	-0.005	-0.005	-0.005
2.75	0.865	0.095	0.160	-0.005	-0.005	-0.005	2.75	0.844	0.186	-0.186	-0.005	-0.005	-0.005
2.76	0.864	0.096	0.162	-0.005	-0.005	-0.005	2.76	0.840	0.188	-0.188	-0.005	-0.005	-0.005
2.77	0.863	0.097	0.164	-0.005	-0.005	-0.005	2.77	0.836	0.190	-0.190	-0.005	-0.005	-0.005
2.78	0.862	0.098	0.166	-0.005	-0.005	-0.005	2.78	0.832	0.192	-0.192	-0.005	-0.005	-0.005
2.79	0.861	0.099	0.168	-0.005	-0.005	-0.005	2.79	0.828	0.194	-0.194	-0.005	-0.005	-0.005
2.80	0.860	0.100	0.170	-0.005	-0.005	-0.005	2.80	0.824	0.196	-0.196	-0.005	-0.005	-0.005
2.81	0.859	0.101	0.172	-0.005	-0.005	-0.005	2.81	0.820	0.198	-0.198	-0.005	-0.005	-0.005
2.82	0.858	0.102	0.174	-0.005	-0.005	-0.005	2.82	0.816	0.200	-0.200	-0.005	-0.005	-0.005
2.83	0.857	0.103	0.176	-0.005	-0.005	-0.005	2.83	0.812	0.202	-0.202	-0.005	-0.005	-0.005
2.84	0.856	0.104	0.178	-0.005	-0.005	-0.005	2.84	0.808	0.204	-0.204	-0.005	-0.005	-0.005
2.85	0.855	0.105	0.180	-0.005	-0.005	-0.005	2.85	0.804	0.206	-0.206	-0.005	-0.005	-0.005
2.86	0.854	0.106	0.182	-0.005	-0.005	-0.005	2.86	0.800	0.208	-0.208	-0.005	-0.005	-0.005
2.87	0.853	0.107	0.184	-0.005	-0.005	-0.005	2.87	0.796	0.210	-0.210	-0.005	-0.005	-0.005
2.88	0.852	0.108	0.186	-0.005	-0.005	-0.005	2.88	0.792	0.212	-0.212	-0.005	-0.005	-0.005
2.89	0.851	0.109	0.188	-0.005	-0.005	-0.005	2.89	0.788	0.214	-0.214	-0.005	-0.005	-0.005
2.90	0.850	0.110	0.190	-0.005	-0.005	-0.005	2.90	0.784	0.216	-0.216	-0.005	-0.005	-0.005
2.91	0.849	0.111	0.192	-0.005	-0.005	-0.005	2.91	0.780	0.218	-0.218	-0.005	-0.005	-0.005
2.92	0.848	0.112	0.194	-0.005	-0.005	-0.005	2.92	0.776	0.220	-0.220	-0.005	-0.005	-0.005
2.93	0.847	0.113	0.196	-0.005	-0.005	-0.005	2.93	0.772	0.222	-0.222	-0.005	-0.005	-0.005
2.94	0.846	0.114	0.198	-0.005	-0.005	-0.005	2.94	0.768	0.224	-0.224	-0.005	-0.005	-0.005
2.95	0.845	0.115	0.200	-0.005	-0.005	-0.005	2.95	0.764	0.226	-0.226	-0.005	-0.005	-0.005
2.96	0.844	0.116	0.202	-0.005	-0.005	-0.005	2.96	0.760	0.228	-0.228	-0.005	-0.005	-0.005
2.97	0.843	0.117	0.204	-0.005	-0.005	-0.005	2.97	0.756	0.230	-0.230	-0.005	-0.005	-0.005
2.98	0.842	0.118	0.206	-0.005	-0.005	-0.005	2.98	0.752	0.232	-0.232	-0.005	-0.005	-0.005
2.99	0.841	0.119	0.208	-0.005	-0.005	-0.005	2.99	0.748	0.234	-0.234	-0.005	-0.005	-0.005
3.00	0.840	0.120	0.210	-0.005	-0.005	-0.005	3.00	0.744	0.236	-0.236	-0.005	-0.	

TABLE IX.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0; INBOARD FLAPS DEFLECTED 30° - Concluded

(c) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$

α	C_L	C_D	C_{D0}	C_{D1}	C_{D2}	C_{D3}	C_{D4}	C_{D5}	C_{D6}	C_{D7}	C_{D8}	C_{D9}	C_{D10}	C_{D11}	C_{D12}	C_{D13}	C_{D14}	C_{D15}	C_{D16}	C_{D17}	C_{D18}	C_{D19}	C_{D20}	C_{D21}	C_{D22}	C_{D23}	C_{D24}	C_{D25}	C_{D26}	C_{D27}	C_{D28}	C_{D29}	C_{D30}	C_{D31}	C_{D32}	C_{D33}	C_{D34}	C_{D35}	C_{D36}	C_{D37}	C_{D38}	C_{D39}	C_{D40}	C_{D41}	C_{D42}	C_{D43}	C_{D44}	C_{D45}	C_{D46}	C_{D47}	C_{D48}	C_{D49}	C_{D50}	C_{D51}	C_{D52}	C_{D53}	C_{D54}	C_{D55}	C_{D56}	C_{D57}	C_{D58}	C_{D59}	C_{D60}	C_{D61}	C_{D62}	C_{D63}	C_{D64}	C_{D65}	C_{D66}	C_{D67}	C_{D68}	C_{D69}	C_{D70}	C_{D71}	C_{D72}	C_{D73}	C_{D74}	C_{D75}	C_{D76}	C_{D77}	C_{D78}	C_{D79}	C_{D80}	C_{D81}	C_{D82}	C_{D83}	C_{D84}	C_{D85}	C_{D86}	C_{D87}	C_{D88}	C_{D89}	C_{D90}	C_{D91}	C_{D92}	C_{D93}	C_{D94}	C_{D95}	C_{D96}	C_{D97}	C_{D98}	C_{D99}	C_{D100}	C_{D101}	C_{D102}	C_{D103}	C_{D104}	C_{D105}	C_{D106}	C_{D107}	C_{D108}	C_{D109}	C_{D110}	C_{D111}	C_{D112}	C_{D113}	C_{D114}	C_{D115}	C_{D116}	C_{D117}	C_{D118}	C_{D119}	C_{D120}	C_{D121}	C_{D122}	C_{D123}	C_{D124}	C_{D125}	C_{D126}	C_{D127}	C_{D128}	C_{D129}	C_{D130}	C_{D131}	C_{D132}	C_{D133}	C_{D134}	C_{D135}	C_{D136}	C_{D137}	C_{D138}	C_{D139}	C_{D140}	C_{D141}	C_{D142}	C_{D143}	C_{D144}	C_{D145}	C_{D146}	C_{D147}	C_{D148}	C_{D149}	C_{D150}	C_{D151}	C_{D152}	C_{D153}	C_{D154}	C_{D155}	C_{D156}	C_{D157}	C_{D158}	C_{D159}	C_{D160}	C_{D161}	C_{D162}	C_{D163}	C_{D164}	C_{D165}	C_{D166}	C_{D167}	C_{D168}	C_{D169}	C_{D170}	C_{D171}	C_{D172}	C_{D173}	C_{D174}	C_{D175}	C_{D176}	C_{D177}	C_{D178}	C_{D179}	C_{D180}	C_{D181}	C_{D182}	C_{D183}	C_{D184}	C_{D185}	C_{D186}	C_{D187}	C_{D188}	C_{D189}	C_{D190}	C_{D191}	C_{D192}	C_{D193}	C_{D194}	C_{D195}	C_{D196}	C_{D197}	C_{D198}	C_{D199}	C_{D200}	C_{D201}	C_{D202}	C_{D203}	C_{D204}	C_{D205}	C_{D206}	C_{D207}	C_{D208}	C_{D209}	C_{D210}	C_{D211}	C_{D212}	C_{D213}	C_{D214}	C_{D215}	C_{D216}	C_{D217}	C_{D218}	C_{D219}	C_{D220}	C_{D221}	C_{D222}	C_{D223}	C_{D224}	C_{D225}	C_{D226}	C_{D227}	C_{D228}	C_{D229}	C_{D230}	C_{D231}	C_{D232}	C_{D233}	C_{D234}	C_{D235}	C_{D236}	C_{D237}	C_{D238}	C_{D239}	C_{D240}	C_{D241}	C_{D242}	C_{D243}	C_{D244}	C_{D245}	C_{D246}	C_{D247}	C_{D248}	C_{D249}	C_{D250}	C_{D251}	C_{D252}	C_{D253}	C_{D254}	C_{D255}	C_{D256}	C_{D257}	C_{D258}	C_{D259}	C_{D260}	C_{D261}	C_{D262}	C_{D263}	C_{D264}	C_{D265}	C_{D266}	C_{D267}	C_{D268}	C_{D269}	C_{D270}	C_{D271}	C_{D272}	C_{D273}	C_{D274}	C_{D275}	C_{D276}	C_{D277}	C_{D278}	C_{D279}	C_{D280}	C_{D281}	C_{D282}	C_{D283}	C_{D284}	C_{D285}	C_{D286}	C_{D287}	C_{D288}	C_{D289}	C_{D290}	C_{D291}	C_{D292}	C_{D293}	C_{D294}	C_{D295}	C_{D296}	C_{D297}	C_{D298}	C_{D299}	C_{D300}	C_{D301}	C_{D302}	C_{D303}	C_{D304}	C_{D305}	C_{D306}	C_{D307}	C_{D308}	C_{D309}	C_{D310}	C_{D311}	C_{D312}	C_{D313}	C_{D314}	C_{D315}	C_{D316}	C_{D317}	C_{D318}	C_{D319}	C_{D320}	C_{D321}	C_{D322}	C_{D323}	C_{D324}	C_{D325}	C_{D326}	C_{D327}	C_{D328}	C_{D329}	C_{D330}	C_{D331}	C_{D332}	C_{D333}	C_{D334}	C_{D335}	C_{D336}	C_{D337}	C_{D338}	C_{D339}	C_{D340}	C_{D341}	C_{D342}	C_{D343}	C_{D344}	C_{D345}	C_{D346}	C_{D347}	C_{D348}	C_{D349}	C_{D350}	C_{D351}	C_{D352}	C_{D353}	C_{D354}	C_{D355}	C_{D356}	C_{D357}	C_{D358}	C_{D359}	C_{D360}	C_{D361}	C_{D362}	C_{D363}	C_{D364}	C_{D365}	C_{D366}	C_{D367}	C_{D368}	C_{D369}	C_{D370}	C_{D371}	C_{D372}	C_{D373}	C_{D374}	C_{D375}	C_{D376}	C_{D377}	C_{D378}	C_{D379}	C_{D380}	C_{D381}	C_{D382}	C_{D383}	C_{D384}	C_{D385}	C_{D386}	C_{D387}	C_{D388}	C_{D389}	C_{D390}	C_{D391}	C_{D392}	C_{D393}	C_{D394}	C_{D395}	C_{D396}	C_{D397}	C_{D398}	C_{D399}	C_{D400}	C_{D401}	C_{D402}	C_{D403}	C_{D404}	C_{D405}	C_{D406}	C_{D407}	C_{D408}	C_{D409}	C_{D410}	C_{D411}	C_{D412}	C_{D413}	C_{D414}	C_{D415}	C_{D416}	C_{D417}	C_{D418}	C_{D419}	C_{D420}	C_{D421}	C_{D422}	C_{D423}	C_{D424}	C_{D425}	C_{D426}	C_{D427}	C_{D428}	C_{D429}	C_{D430}	C_{D431}	C_{D432}	C_{D433}	C_{D434}	C_{D435}	C_{D436}	C_{D437}	C_{D438}	C_{D439}	C_{D440}	C_{D441}	C_{D442}	C_{D443}	C_{D444}	C_{D445}	C_{D446}	C_{D447}	C_{D448}	C_{D449}	C_{D450}	C_{D451}	C_{D452}	C_{D453}	C_{D454}	C_{D455}	C_{D456}	C_{D457}	C_{D458}	C_{D459}	C_{D460}	C_{D461}	C_{D462}	C_{D463}	C_{D464}	C_{D465}	C_{D466}	C_{D467}	C_{D468}	C_{D469}	C_{D470}	C_{D471}	C_{D472}	C_{D473}	C_{D474}	C_{D475}	C_{D476}	C_{D477}	C_{D478}	C_{D479}	C_{D480}	C_{D481}	C_{D482}	C_{D483}	C_{D484}	C_{D485}	C_{D486}	C_{D487}	C_{D488}	C_{D489}	C_{D490}	C_{D491}	C_{D492}	C_{D493}	C_{D494}	C_{D495}	C_{D496}	C_{D497}	C_{D498}	C_{D499}	C_{D500}	C_{D501}	C_{D502}	C_{D503}	C_{D504}	C_{D505}	C_{D506}	C_{D507}	C_{D508}	C_{D509}	C_{D510}	C_{D511}	C_{D512}	C_{D513}	C_{D514}	C_{D515}	C_{D516}	C_{D517}	C_{D518}	C_{D519}	C_{D520}	C_{D521}	C_{D522}	C_{D523}	C_{D524}	C_{D525}	C_{D526}	C_{D527}	C_{D528}	C_{D529}	C_{D530}	C_{D531}	C_{D532}	C_{D533}	C_{D534}	C_{D535}	C_{D536}	C_{D537}	C_{D538}	C_{D539}	C_{D540}	C_{D541}	C_{D542}	C_{D543}	C_{D544}	C_{D545}	C_{D546}	C_{D547}	C_{D548}	C_{D549}	C_{D550}	C_{D551}	C_{D552}	C_{D553}	C_{D554}	C_{D555}	C_{D556}	C_{D557}	C_{D558}	C_{D559}	C_{D560}	C_{D561}	C_{D562}	C_{D563}	C_{D564}	C_{D565}	C_{D566}	C_{D567}	C_{D568}	C_{D569}	C_{D570}	C_{D571}	C_{D572}	C_{D573}	C_{D574}	C_{D575}	C_{D576}	C_{D577}	C_{D578}	C_{D579}	C_{D580}	C_{D581}	C_{D582}	C_{D583}	C_{D584}	C_{D585}	C_{D586}	C_{D587}	C_{D588}	C_{D589}	C_{D590}	C_{D591}	C_{D592}	C_{D593}	C_{D594}	C_{D595}	C_{D596}	C_{D597}	C_{D598}	C_{D599}	C_{D600}	C_{D601}	C_{D602}	C_{D603}	C_{D604}	C_{D605}	C_{D606}	C_{D607}	C_{D608}	C_{D609}	C_{D610}	C_{D611}	C_{D612}	C_{D613}	C_{D614}	C_{D615}	C_{D616}	C_{D617}	C_{D618}	C_{D619}	C_{D620}	C_{D621}	C_{D622}	C_{D623}	C_{D624}	C_{D625}	C_{D626}	C_{D627}	C_{D628}	C_{D629}	C_{D630}	C_{D631}	C_{D632}	C_{D633}	C_{D634}	C_{D635}	C_{D636}	C_{D637}	C_{D638}	C_{D639}	C_{D640}	C_{D641}	C_{D642}	C_{D643}	C_{D644}	C_{D645}	C_{D646}	C_{D647}	C_{D648}	C_{D649}	C_{D650}	C_{D651}	C_{D652}	C_{D653}	C_{D654}	C_{D655}	C_{D656}	C_{D657}	C_{D658}	C_{D659}	C_{D660}	C_{D661}	C_{D662}	C_{D663}	C_{D664}	C_{D665}	C_{D666}	C_{D667}	C_{D668}	C_{D669}	C_{D670}	C_{D671}	C_{D672}	C_{D673}	C_{D674}	C_{D675}	C_{D676}	C_{D677}	C_{D678}	C_{D679}	C_{D680}	C_{D681}	C_{D682}	C_{D683}	C_{D684}	C_{D685}	C_{D686}	C_{D687}	C_{D688}	C_{D689}	C_{D690}	C_{D691}	C_{D692}	C_{D693}	C_{D694}	C_{D695}	C_{D696}	C_{D697}	C_{D698}	C_{D699}	C_{D700}	C_{D701}	C_{D702}	C_{D703}	C_{D704}	C_{D705}	C_{D706}	C_{D707}	C_{D708}	C_{D709}	C_{D710}	C_{D711}	C_{D712}	C_{D713}	C_{D714}	C_{D715}	C_{D716}	C_{D717}	C_{D718}	C_{D719}	C_{D720}	C_{D721}	C_{D722}	C_{D723}	C_{D724}	C_{D725}	C_{D726}	C_{D727}	C_{D728}	C_{D729}	C_{D730}	C_{D731}	C_{D732}	C_{D733}	C_{D734}	C_{D735}	C_{D736}	C_{D737}	C_{D738}	C_{D739}	C_{D740}	C_{D741}	C_{D742}	C_{D743}	C_{D744}	C_{D745}	C_{D746}	C_{D747}	C_{D748}	C_{D749}	C_{D750}	C_{D751}	C_{D752}	C_{D753}	C_{D754}	C_{D755}	C_{D756}	C_{D757}	C_{D758}	C_{D759}	C_{D760}	C_{D761}	C_{D762}	C_{D763}	C_{D764}	C_{D765}	C_{D766}	C_{D767}	C_{D768}	C_{D769}	C_{D770}	C_{D771}	C_{D772}	C_{D773}	C_{D774}	C_{D775}	C_{D776}	C_{D777}	C_{D778}	C_{D779}	C_{D780}	C_{D781}	C_{D782}	C_{D783}	C_{D784}	C_{D785}	C_{D786}	C_{D787}	C_{D788}	C_{D789}	C_{D790}	C_{D791}	C_{D792}	C_{D793}	C_{D794}	C_{D795}	C_{D796}	C_{D797}	C_{D798}	C_{D799}	C_{D800}	C_{D801}	C_{D802}	C_{D803}	C_{D804}	C_{D805}	C_{D806}	C_{D807}	C_{D808}	C_{D809}	C_{D810}	C_{D811}	C_{D812}	C_{D813}	C_{D814}	C_{D815}	C_{D816}	C_{D817}	C_{D818}	C_{D819}	C_{D820}	C_{D821}	C_{D822}	C_{D823}	C_{D824}	C_{D825}	C_{D826}	C_{D827}	C_{D828}	C_{D829}	C_{D830}	C_{D831}	C_{D832}	C_{D833}	C_{D834}	C_{D835}	C_{D836}	C_{D837}	C_{D838}	C_{D839}	C_{D840}	C_{D841}	C_{D842}	C_{D843}	C_{D844}	C_{D845}	C_{D846}	C_{D847}	C_{D848}	C_{D849}	C_{D850}	C_{D851}	C_{D852}	C_{D853}	C_{D854}	C_{D855}	C_{D856}	C_{D857}	C_{D858}	C_{D859}	C_{D860}	C_{D861}	C_{D862}	C_{D863}	C_{D864}	C_{D865}	C_{D866}	C_{D867}	$C_{D868}</$
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TABLE X.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; INBOARD FLAPS DEFLECTED 30° - Continued

(b) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$; Inboard propeller only

[illegible]

(c) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$; Outboard propeller only

α	C_L	C_X	C_m	T_c	C_p	α	C_L	C_X	C_m	T_c	J	C_p	α	C_L	C_X	C_m	T_c	J	C_p
0.18	0.920	0.039	0.066	-	-	83.31	1.042	0.071	-0.026	-	-	-	84.142	1.487	0.162	-0.109	-	-	0.010
2.18	1.536	0.024	0.076	-0.011	1.090	8.33	1.066	0.074	-0.027	-0.008	1.087	-	14.42	1.900	0.173	-1.102	-0.008	1.096	0.010
2.19	1.941	0.024	0.076	0.041	0.922	8.33	1.076	0.074	-0.027	0.039	0.947	0.082	14.45	1.908	0.118	-1.102	0.040	0.995	0.095
2.19	2.543	0.024	0.077	0.097	0.847	8.33	1.094	0.074	-0.028	0.100	0.856	0.079	14.47	1.931	0.101	-1.122	0.093	0.847	0.087
2.19	3.511	0.024	0.081	0.176	0.748	8.33	1.111	0.073	-0.030	0.174	0.748	0.110	14.48	1.661	0.074	-1.122	0.167	0.747	0.114
2.19	5.951	0.024	0.088	0.305	0.648	8.33	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
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2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
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2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035	0.306	0.648	0.139	14.49	1.709	0.027	-1.124	0.291	0.648	0.169
2.20	5.524	0.025	0.094	0.305	0.648	8.36	1.138	0.047	-0.035</										

TABLE X.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; INBOARD FLAPS DEFLECTED 30° -- Concluded

(d) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -2^\circ$

α	C_L	C_D	C_M	T_{cav}	J_{av}	C_{Fav}	α	C_L	C_D	C_M	T_{cav}	J_{av}	C_{Fav}	α	C_L	C_D	C_M	T_{cav}	J_{av}	C_{Fav}
2.17	0.504	0.098	0.132	-0.007	1.079	0.005	8.31	1.026	0.070	0.032	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.18	0.514	0.091	0.135	-0.007	1.079	0.005	8.32	1.031	0.073	0.046	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.19	0.524	0.084	0.137	-0.007	1.079	0.005	8.33	1.036	0.076	0.060	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.20	0.534	0.077	0.140	-0.007	1.079	0.005	8.34	1.041	0.079	0.074	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.21	0.544	0.070	0.143	-0.007	1.079	0.005	8.35	1.046	0.082	0.088	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.22	0.554	0.063	0.146	-0.007	1.079	0.005	8.36	1.051	0.085	0.102	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.23	0.564	0.056	0.149	-0.007	1.079	0.005	8.37	1.056	0.088	0.116	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.24	0.574	0.049	0.152	-0.007	1.079	0.005	8.38	1.061	0.091	0.130	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.25	0.584	0.042	0.155	-0.007	1.079	0.005	8.39	1.066	0.094	0.144	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.26	0.594	0.035	0.158	-0.007	1.079	0.005	8.40	1.071	0.097	0.158	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.27	0.604	0.028	0.161	-0.007	1.079	0.005	8.41	1.076	0.100	0.172	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.28	0.614	0.021	0.164	-0.007	1.079	0.005	8.42	1.081	0.103	0.186	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.29	0.624	0.014	0.167	-0.007	1.079	0.005	8.43	1.086	0.106	0.200	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.30	0.634	0.007	0.170	-0.007	1.079	0.005	8.44	1.091	0.109	0.214	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.31	0.644	0.000	0.173	-0.007	1.079	0.005	8.45	1.096	0.112	0.228	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.32	0.654	-0.007	0.176	-0.007	1.079	0.005	8.46	1.101	0.115	0.242	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.33	0.664	-0.014	0.179	-0.007	1.079	0.005	8.47	1.106	0.118	0.256	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.34	0.674	-0.021	0.182	-0.007	1.079	0.005	8.48	1.111	0.121	0.270	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.35	0.684	-0.028	0.185	-0.007	1.079	0.005	8.49	1.116	0.124	0.284	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.36	0.694	-0.035	0.188	-0.007	1.079	0.005	8.50	1.121	0.127	0.298	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.37	0.704	-0.042	0.191	-0.007	1.079	0.005	8.51	1.126	0.130	0.312	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.38	0.714	-0.049	0.194	-0.007	1.079	0.005	8.52	1.131	0.133	0.326	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.39	0.724	-0.056	0.197	-0.007	1.079	0.005	8.53	1.136	0.136	0.340	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.40	0.734	-0.063	0.200	-0.007	1.079	0.005	8.54	1.141	0.139	0.354	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.41	0.744	-0.070	0.203	-0.007	1.079	0.005	8.55	1.146	0.142	0.368	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.42	0.754	-0.077	0.206	-0.007	1.079	0.005	8.56	1.151	0.145	0.382	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.43	0.764	-0.084	0.209	-0.007	1.079	0.005	8.57	1.156	0.148	0.396	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.44	0.774	-0.091	0.212	-0.007	1.079	0.005	8.58	1.161	0.151	0.410	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.45	0.784	-0.098	0.215	-0.007	1.079	0.005	8.59	1.166	0.154	0.424	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.46	0.794	-0.105	0.218	-0.007	1.079	0.005	8.60	1.171	0.157	0.438	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.47	0.804	-0.112	0.221	-0.007	1.079	0.005	8.61	1.176	0.160	0.452	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.48	0.814	-0.119	0.224	-0.007	1.079	0.005	8.62	1.181	0.163	0.466	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.49	0.824	-0.126	0.227	-0.007	1.079	0.005	8.63	1.186	0.166	0.480	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.50	0.834	-0.133	0.230	-0.007	1.079	0.005	8.64	1.191	0.169	0.494	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.51	0.844	-0.140	0.233	-0.007	1.079	0.005	8.65	1.196	0.172	0.508	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.52	0.854	-0.147	0.236	-0.007	1.079	0.005	8.66	1.201	0.175	0.522	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.53	0.864	-0.154	0.239	-0.007	1.079	0.005	8.67	1.206	0.178	0.536	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.54	0.874	-0.161	0.242	-0.007	1.079	0.005	8.68	1.211	0.181	0.550	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.55	0.884	-0.168	0.245	-0.007	1.079	0.005	8.69	1.216	0.184	0.564	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.56	0.894	-0.175	0.248	-0.007	1.079	0.005	8.70	1.221	0.187	0.578	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.57	0.904	-0.182	0.251	-0.007	1.079	0.005	8.71	1.226	0.190	0.592	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.58	0.914	-0.189	0.254	-0.007	1.079	0.005	8.72	1.231	0.193	0.606	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.59	0.924	-0.196	0.257	-0.007	1.079	0.005	8.73	1.236	0.196	0.620	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.60	0.934	-0.203	0.260	-0.007	1.079	0.005	8.74	1.241	0.199	0.634	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.61	0.944	-0.210	0.263	-0.007	1.079	0.005	8.75	1.246	0.202	0.648	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.62	0.954	-0.217	0.266	-0.007	1.079	0.005	8.76	1.251	0.205	0.662	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.63	0.964	-0.224	0.269	-0.007	1.079	0.005	8.77	1.256	0.208	0.676	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.64	0.974	-0.231	0.272	-0.007	1.079	0.005	8.78	1.261	0.211	0.690	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.65	0.984	-0.238	0.275	-0.007	1.079	0.005	8.79	1.266	0.214	0.704	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.66	0.994	-0.245	0.278	-0.007	1.079	0.005	8.80	1.271	0.217	0.718	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.67	1.004	-0.252	0.281	-0.007	1.079	0.005	8.81	1.276	0.220	0.732	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.68	1.014	-0.259	0.284	-0.007	1.079	0.005	8.82	1.281	0.223	0.746	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.69	1.024	-0.266	0.287	-0.007	1.079	0.005	8.83	1.286	0.226	0.760	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.70	1.034	-0.273	0.290	-0.007	1.079	0.005	8.84	1.291	0.229	0.774	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.71	1.044	-0.280	0.293	-0.007	1.079	0.005	8.85	1.296	0.232	0.788	-0.006	1.075	0.006	16.41	1.448	0.125	-0.061	-0.006	1.081	0.011
2.72	1.054	-0.287	0.296	-0.007	1.079	0.005	8.86	1.301	0.235	0.802	-0.006	1.075	0.0							

TABLE XI.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; OUTBOARD FLAPS DEFLECTED 30°
M = 0.082; R = 4,000,000; $\beta = 26^\circ$

α	ζ_L	ζ_X	ζ_n	T_{GeV}	J_{GeV}	ϕ_{GeV}
2.14	0.143	0.033	-0.200	-0.127	1.093	0.004
2.15	0.144	0.034	-0.197	-0.124	1.094	0.004
2.16	0.146	0.035	-0.194	-0.124	1.094	0.004
2.17	0.148	0.036	-0.192	-0.124	1.094	0.004
2.18	0.150	0.037	-0.189	-0.124	1.094	0.004
2.19	0.152	0.038	-0.187	-0.124	1.094	0.004
2.20	0.154	0.039	-0.185	-0.124	1.094	0.004
2.21	0.156	0.040	-0.182	-0.124	1.094	0.004
2.22	0.158	0.041	-0.180	-0.124	1.094	0.004
2.23	0.160	0.042	-0.178	-0.124	1.094	0.004
2.24	0.162	0.043	-0.176	-0.124	1.094	0.004
2.25	0.164	0.044	-0.174	-0.124	1.094	0.004
2.26	0.166	0.045	-0.172	-0.124	1.094	0.004
2.27	0.168	0.046	-0.170	-0.124	1.094	0.004
2.28	0.170	0.047	-0.168	-0.124	1.094	0.004
2.29	0.172	0.048	-0.166	-0.124	1.094	0.004
2.30	0.174	0.049	-0.164	-0.124	1.094	0.004
2.31	0.176	0.050	-0.162	-0.124	1.094	0.004
2.32	0.178	0.051	-0.160	-0.124	1.094	0.004
2.33	0.180	0.052	-0.158	-0.124	1.094	0.004
2.34	0.182	0.053	-0.156	-0.124	1.094	0.004
2.35	0.184	0.054	-0.154	-0.124	1.094	0.004
2.36	0.186	0.055	-0.152	-0.124	1.094	0.004
2.37	0.188	0.056	-0.150	-0.124	1.094	0.004
2.38	0.190	0.057	-0.148	-0.124	1.094	0.004
2.39	0.192	0.058	-0.146	-0.124	1.094	0.004
2.40	0.194	0.059	-0.144	-0.124	1.094	0.004
2.41	0.196	0.060	-0.142	-0.124	1.094	0.004
2.42	0.198	0.061	-0.140	-0.124	1.094	0.004
2.43	0.200	0.062	-0.138	-0.124	1.094	0.004
2.44	0.202	0.063	-0.136	-0.124	1.094	0.004
2.45	0.204	0.064	-0.134	-0.124	1.094	0.004
2.46	0.206	0.065	-0.132	-0.124	1.094	0.004
2.47	0.208	0.066	-0.130	-0.124	1.094	0.004
2.48	0.210	0.067	-0.128	-0.124	1.094	0.004
2.49	0.212	0.068	-0.126	-0.124	1.094	0.004
2.50	0.214	0.069	-0.124	-0.124	1.094	0.004
2.51	0.216	0.070	-0.122	-0.124	1.094	0.004
2.52	0.218	0.071	-0.120	-0.124	1.094	0.004
2.53	0.220	0.072	-0.118	-0.124	1.094	0.004
2.54	0.222	0.073	-0.116	-0.124	1.094	0.004
2.55	0.224	0.074	-0.114	-0.124	1.094	0.004
2.56	0.226	0.075	-0.112	-0.124	1.094	0.004
2.57	0.228	0.076	-0.110	-0.124	1.094	0.004
2.58	0.230	0.077	-0.108	-0.124	1.094	0.004
2.59	0.232	0.078	-0.106	-0.124	1.094	0.004
2.60	0.234	0.079	-0.104	-0.124	1.094	0.004
2.61	0.236	0.080	-0.102	-0.124	1.094	0.004
2.62	0.238	0.081	-0.100	-0.124	1.094	0.004
2.63	0.240	0.082	-0.098	-0.124	1.094	0.004
2.64	0.242	0.083	-0.096	-0.124	1.094	0.004
2.65	0.244	0.084	-0.094	-0.124	1.094	0.004
2.66	0.246	0.085	-0.092	-0.124	1.094	0.004
2.67	0.248	0.086	-0.090	-0.124	1.094	

^aPropellers removed

TABLE XII. -- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; OUTBOARD FLAPS DEFLECTED 30°

(a) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$

[illegible]

propellers removed



TABLE XII.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING 38

A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; OUTBOARD FLAPS DEFLECTED 30° - Continued

(b) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$; Inboard propeller only

α	C_L	C_X	C_m	η_c	J	C_p	α	C_L	C_X	C_m	η_c	J	C_p
2.15	0.482	0.033	-0.217	-	-	-	8.29	0.974	0.068	-0.346	-	-	-
2.16	0.486	0.035	-0.220	-0.006	1.077	0.005	8.30	0.972	0.065	-0.342	-0.008	1.087	0.003
2.17	0.493	0.036	-0.213	-0.043	0.938	0.050	8.30	0.996	0.048	-0.334	0.039	0.947	0.051
2.18	0.460	-0.005	-0.209	-0.101	0.835	0.079	8.31	1.015	0.030	-0.303	0.094	0.846	0.077
2.19	0.465	-0.036	-0.207	-0.184	0.738	0.106	8.31	1.040	0	-0.303	0.175	0.748	0.103
2.20	0.473	-0.084	-0.203	-0.304	0.649	0.136	8.31	1.064	-0.048	-0.285	0.310	0.646	0.136
2.21	0.481	-0.168	-0.203	-0.450	0.560	0.168	8.32	1.100	-0.132	-0.265	0.495	0.544	0.168
2.22	0.483	-0.289	-0.194	-0.641	0.465	0.190	8.32	1.122	-0.243	-0.261	0.689	0.464	0.190
2.23	0.482	-0.440	-0.194	-0.881	0.365	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.24	0.480	-0.627	-0.204	-1.077	0.275	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.25	0.479	-0.843	-0.215	-1.284	0.195	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.26	0.478	-1.084	-0.226	-1.500	0.125	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.27	0.477	-1.340	-0.237	-1.724	0.065	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.28	0.476	-1.600	-0.248	-1.954	0.015	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.29	0.475	-1.864	-0.259	-2.188	0.000	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.30	0.474	-2.132	-0.269	-2.424	-0.015	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.31	0.473	-2.404	-0.279	-2.660	-0.030	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.32	0.472	-2.680	-0.289	-2.896	-0.045	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.33	0.471	-2.958	-0.299	-3.132	-0.060	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.34	0.470	-3.236	-0.309	-3.368	-0.075	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.35	0.469	-3.514	-0.319	-3.604	-0.090	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.36	0.468	-3.792	-0.329	-3.840	-0.105	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.37	0.467	-4.070	-0.339	-4.076	-0.120	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.38	0.466	-4.348	-0.349	-4.312	-0.135	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.39	0.465	-4.626	-0.359	-4.548	-0.150	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.40	0.464	-4.904	-0.369	-4.784	-0.165	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.41	0.463	-5.182	-0.379	-5.020	-0.180	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.42	0.462	-5.460	-0.389	-5.256	-0.195	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.43	0.461	-5.738	-0.399	-5.492	-0.210	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.44	0.460	-6.016	-0.409	-5.728	-0.225	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.45	0.459	-6.294	-0.419	-5.964	-0.240	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.46	0.458	-6.572	-0.429	-6.200	-0.255	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.47	0.457	-6.850	-0.439	-6.436	-0.270	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.48	0.456	-7.128	-0.449	-6.672	-0.285	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.49	0.455	-7.406	-0.459	-6.908	-0.300	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.50	0.454	-7.684	-0.469	-7.144	-0.315	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.51	0.453	-7.962	-0.479	-7.380	-0.330	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.52	0.452	-8.240	-0.489	-7.616	-0.345	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.53	0.451	-8.518	-0.499	-7.852	-0.360	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.54	0.450	-8.796	-0.509	-8.088	-0.375	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.55	0.449	-9.074	-0.519	-8.324	-0.390	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.56	0.448	-9.352	-0.529	-8.560	-0.405	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.57	0.447	-9.630	-0.539	-8.796	-0.420	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.58	0.446	-9.908	-0.549	-9.032	-0.435	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.59	0.445	-10.186	-0.559	-9.268	-0.450	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.60	0.444	-10.464	-0.569	-9.504	-0.465	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.61	0.443	-10.742	-0.579	-9.740	-0.480	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.62	0.442	-11.020	-0.589	-9.976	-0.495	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.63	0.441	-11.298	-0.599	-10.212	-0.510	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.64	0.440	-11.576	-0.609	-10.448	-0.525	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.65	0.439	-11.854	-0.619	-10.684	-0.540	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.66	0.438	-12.132	-0.629	-10.920	-0.555	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.67	0.437	-12.410	-0.639	-11.156	-0.570	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.68	0.436	-12.688	-0.649	-11.392	-0.585	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.69	0.435	-12.966	-0.659	-11.628	-0.600	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.70	0.434	-13.244	-0.669	-11.864	-0.615	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.71	0.433	-13.522	-0.679	-12.100	-0.630	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.72	0.432	-13.800	-0.689	-12.336	-0.645	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.73	0.431	-14.078	-0.699	-12.572	-0.660	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.74	0.430	-14.356	-0.709	-12.808	-0.675	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.75	0.429	-14.634	-0.719	-13.044	-0.690	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.76	0.428	-14.912	-0.729	-13.280	-0.705	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.77	0.427	-15.190	-0.739	-13.516	-0.720	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.78	0.426	-15.468	-0.749	-13.752	-0.735	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.79	0.425	-15.746	-0.759	-13.988	-0.750	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.80	0.424	-16.024	-0.769	-14.224	-0.765	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.81	0.423	-16.302	-0.779	-14.460	-0.780	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.82	0.422	-16.580	-0.789	-14.696	-0.795	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.83	0.421	-16.858	-0.799	-14.932	-0.810	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.84	0.420	-17.136	-0.809	-15.168	-0.825	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.85	0.419	-17.414	-0.819	-15.404	-0.840	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.86	0.418	-17.692	-0.829	-15.640	-0.855	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.87	0.417	-17.970	-0.839	-15.876	-0.870	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.88	0.416	-18.248	-0.849	-16.112	-0.885	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.89	0.415	-18.526	-0.859	-16.348	-0.900	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.90	0.414	-18.804	-0.869	-16.584	-0.915	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.91	0.413	-19.082	-0.879	-16.820	-0.930	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.92	0.412	-19.360	-0.889	-17.056	-0.945	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.93	0.411	-19.638	-0.899	-17.292	-0.960	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.94	0.410	-19.916	-0.909	-17.528	-0.975	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.95	0.409	-20.194	-0.919	-17.764	-0.990	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.96	0.408	-20.472	-0.929	-18.000	-1.005	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.97	0.407	-20.750	-0.939	-18.236	-1.020	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.98	0.406	-21.028	-0.949	-18.472	-1.035	0.190	10.33	1.140	0.075	-0.390	-	-	-
2.99	0.405	-21.306	-0.959	-18.708	-1.050	0.190	10.33	1.140	0.075	-0.390	-	-	-
3.00	0.404	-21.584	-0.969	-18.944	-1.065	0.190	10.33	1.140	0.075	-0.390	-	-	-

*Propellers removed

(c) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$; Outboard propeller only

α	C_L	C_X	C_m	η_c	J	C_p	α	C_L	C_X	C_m	η_c	J	C_p
2.15	0.482	0.033	-0.217	-	-	-	8.29	0.974	0.068	-0.346	-	-	-
2.16	0.486	0.035	-0.220	-0.006	1.077	0.005	8.30	0.972	0.065	-0.342	-0.008	1.087	0.003
2.17	0.493	0.036	-0.213	-0.043	0.938	0.050	8.30	0.996	0.048	-0.334	0.039	0.947	

TABLE XII.--LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; OUTBOARD FLAPS DEFLECTED 30° -- Concluded

(a) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -8^\circ$

α	Γ_L	Γ_m	F_{env}	J^{env}	C_{env}	α	Γ_L	Γ_m	χ	C_m	F_{env}	J^{env}	C_{env}	α	Γ_L	Γ_m	χ	C_m	Γ_{env}	J^{env}	C_{env}	α	Γ_L	Γ_m	χ	C_m	Γ_{env}	J^{env}	C_{env}
$^{11}_{1.1}$	0.340	0.035	0.046	-	-	8.29	0.870	0.098	-	-0.090	-	0.985	0.000	$^{14}_{14.37}$	1.361	0.150	0.150	-0.268	-	0.985	0.000	$^{14}_{14.37}$	1.361	0.150	0.150	-0.268	-	0.985	0.000
$^{12}_{2.12}$	0.348	0.039	0.046	-0.004	-0.004	8.25	0.868	0.098	-0.004	-0.004	-0.004	-0.004	-0.004	$^{14}_{14.41}$	1.368	0.150	0.150	-0.268	-0.004	-0.004	-0.004	$^{14}_{14.41}$	1.368	0.150	0.150	-0.268	-0.004	-0.004	-0.004
$^{13}_{3.13}$	0.356	0.043	0.046	-0.008	-0.008	8.21	0.866	0.098	-0.008	-0.008	-0.008	-0.008	-0.008	$^{14}_{14.45}$	1.375	0.150	0.150	-0.268	-0.008	-0.008	-0.008	$^{14}_{14.45}$	1.375	0.150	0.150	-0.268	-0.008	-0.008	-0.008
$^{14}_{4.14}$	0.364	0.047	0.046	-0.012	-0.012	8.17	0.864	0.098	-0.012	-0.012	-0.012	-0.012	-0.012	$^{14}_{14.49}$	1.382	0.150	0.150	-0.268	-0.012	-0.012	-0.012	$^{14}_{14.49}$	1.382	0.150	0.150	-0.268	-0.012	-0.012	-0.012
$^{15}_{5.15}$	0.372	0.051	0.046	-0.016	-0.016	8.13	0.862	0.098	-0.016	-0.016	-0.016	-0.016	-0.016	$^{14}_{14.53}$	1.389	0.150	0.150	-0.268	-0.016	-0.016	-0.016	$^{14}_{14.53}$	1.389	0.150	0.150	-0.268	-0.016	-0.016	-0.016
$^{16}_{6.16}$	0.380	0.055	0.046	-0.020	-0.020	8.09	0.860	0.098	-0.020	-0.020	-0.020	-0.020	-0.020	$^{14}_{14.57}$	1.396	0.150	0.150	-0.268	-0.020	-0.020	-0.020	$^{14}_{14.57}$	1.396	0.150	0.150	-0.268	-0.020	-0.020	-0.020
$^{17}_{7.17}$	0.388	0.059	0.046	-0.024	-0.024	8.05	0.858	0.098	-0.024	-0.024	-0.024	-0.024	-0.024	$^{14}_{14.61}$	1.403	0.150	0.150	-0.268	-0.024	-0.024	-0.024	$^{14}_{14.61}$	1.403	0.150	0.150	-0.268	-0.024	-0.024	-0.024
$^{18}_{8.18}$	0.396	0.063	0.046	-0.028	-0.028	8.01	0.856	0.098	-0.028	-0.028	-0.028	-0.028	-0.028	$^{14}_{14.65}$	1.410	0.150	0.150	-0.268	-0.028	-0.028	-0.028	$^{14}_{14.65}$	1.410	0.150	0.150	-0.268	-0.028	-0.028	-0.028
$^{19}_{9.19}$	0.404	0.067	0.046	-0.032	-0.032	7.97	0.854	0.098	-0.032	-0.032	-0.032	-0.032	-0.032	$^{14}_{14.69}$	1.417	0.150	0.150	-0.268	-0.032	-0.032	-0.032	$^{14}_{14.69}$	1.417	0.150	0.150	-0.268	-0.032	-0.032	-0.032
$^{20}_{10.20}$	0.412	0.071	0.046	-0.036	-0.036	7.93	0.852	0.098	-0.036	-0.036	-0.036	-0.036	-0.036	$^{14}_{14.73}$	1.424	0.150	0.150	-0.268	-0.036	-0.036	-0.036	$^{14}_{14.73}$	1.424	0.150	0.150	-0.268	-0.036	-0.036	-0.036
$^{21}_{11.21}$	0.420	0.075	0.046	-0.040	-0.040	7.89	0.850	0.098	-0.040	-0.040	-0.040	-0.040	-0.040	$^{14}_{14.77}$	1.431	0.150	0.150	-0.268	-0.040	-0.040	-0.040	$^{14}_{14.77}$	1.431	0.150	0.150	-0.268	-0.040	-0.040	-0.040
$^{22}_{12.22}$	0.428	0.079	0.046	-0.044	-0.044	7.85	0.848	0.098	-0.044	-0.044	-0.044	-0.044	-0.044	$^{14}_{14.81}$	1.438	0.150	0.150	-0.268	-0.044	-0.044	-0.044	$^{14}_{14.81}$	1.438	0.150	0.150	-0.268	-0.044	-0.044	-0.044
$^{23}_{13.23}$	0.436	0.083	0.046	-0.048	-0.048	7.81	0.846	0.098	-0.048	-0.048	-0.048	-0.048	-0.048	$^{14}_{14.85}$	1.445	0.150	0.150	-0.268	-0.048	-0.048	-0.048	$^{14}_{14.85}$	1.445	0.150	0.150	-0.268	-0.048	-0.048	-0.048
$^{24}_{14.24}$	0.444	0.087	0.046	-0.052	-0.052	7.77	0.844	0.098	-0.052	-0.052	-0.052	-0.052	-0.052	$^{14}_{14.89}$	1.452	0.150	0.150	-0.268	-0.052	-0.052	-0.052	$^{14}_{14.89}$	1.452	0.150	0.150	-0.268	-0.052	-0.052	-0.052
$^{25}_{15.25}$	0.452	0.091	0.046	-0.056	-0.056	7.73	0.842	0.098	-0.056	-0.056	-0.056	-0.056	-0.056	$^{14}_{14.93}$	1.459	0.150	0.150	-0.268	-0.056	-0.056	-0.056	$^{14}_{14.93}$	1.459	0.150	0.150	-0.268	-0.056	-0.056	-0.056
$^{26}_{16.26}$	0.460	0.095	0.046	-0.060	-0.060	7.69	0.840	0.098	-0.060	-0.060	-0.060	-0.060	-0.060	$^{14}_{14.97}$	1.466	0.150	0.150	-0.268	-0.060	-0.060	-0.060	$^{14}_{14.97}$	1.466	0.150	0.150	-0.268	-0.060	-0.060	-0.060
$^{27}_{17.27}$	0.468	0.099	0.046	-0.064	-0.064	7.65	0.838	0.098	-0.064	-0.064	-0.064	-0.064	-0.064	$^{14}_{15.01}$	1.473	0.150	0.150	-0.268	-0.064	-0.064	-0.064	$^{14}_{15.01}$	1.473	0.150	0.150	-0.268	-0.064	-0.064	-0.064
$^{28}_{18.28}$	0.476	0.103	0.046	-0.068	-0.068	7.61	0.836	0.098	-0.068	-0.068	-0.068	-0.068	-0.068	$^{14}_{15.05}$	1.480	0.150	0.150	-0.268	-0.068	-0.068	-0.068	$^{14}_{15.05}$	1.480	0.150	0.150	-0.268	-0.068	-0.068	-0.068
$^{29}_{19.29}$	0.484	0.107	0.046	-0.072	-0.072	7.57	0.834	0.098	-0.072	-0.072	-0.072	-0.072	-0.072	$^{14}_{15.09}$	1.487	0.150	0.150	-0.268	-0.072	-0.072	-0.072	$^{14}_{15.09}$	1.487	0.150	0.150	-0.268	-0.072	-0.072	-0.072
$^{30}_{20.30}$	0.492	0.111	0.046	-0.076	-0.076	7.53	0.832	0.098	-0.076	-0.076	-0.076	-0.076	-0.076	$^{14}_{15.13}$	1.494	0.150	0.150	-0.268	-0.076	-0.076	-0.076	$^{14}_{15.13}$	1.494	0.150	0.150	-0.268	-0.076	-0.076	-0.076
$^{31}_{21.31}$	0.500	0.115	0.046	-0.080	-0.080	7.49	0.830	0.098	-0.080	-0.080	-0.080	-0.080	-0.080	$^{14}_{15.17}$	1.501	0.150	0.150	-0.268	-0.080	-0.080	-0.080	$^{14}_{15.17}$	1.501	0.150	0.150	-0.268	-0.080	-0.080	-0.080
$^{32}_{22.32}$	0.508	0.119	0.046	-0.084	-0.084	7.45	0.828	0.098	-0.084	-0.084	-0.084	-0.084	-0.084	$^{14}_{15.21}$	1.508	0.150	0.150	-0.268	-0.084	-0.084	-0.084	$^{14}_{15.21}$	1.508	0.150	0.150	-0.268	-0.084	-0.084	-0.084
$^{33}_{23.33}$	0.516	0.123	0.046	-0.088	-0.088	7.41	0.826	0.098	-0.088	-0.088	-0.088	-0.088	-0.088	$^{14}_{15.25}$	1.515	0.150	0.150	-0.268	-0.088	-0.088	-0.088	$^{14}_{15.25}$	1.515	0.150	0.150	-0.268	-0.088	-0.088	-0.088
$^{34}_{24.34}$	0.524	0.127	0.046	-0.092	-0.092	7.37	0.824	0.098	-0.092	-0.092	-0.092	-0.092	-0.092	$^{14}_{15.29}$	1.522	0.150	0.150	-0.268	-0.092	-0.092	-0.092	$^{14}_{15.29}$	1.522	0.150	0.150	-0.268	-0.092	-0.092	-0.092
$^{35}_{25.35}$	0.532	0.131	0.046	-0.096	-0.096	7.33	0.822	0.098	-0.096	-0.096	-0.096	-0.096	-0.096	$^{14}_{15.33}$	1.529	0.150	0.150	-0.268	-0.096	-0.096	-0.096	$^{14}_{15.33}$	1.529	0.150	0.150	-0.268	-0.096	-0.096	-0.096
$^{36}_{26.36}$	0.540	0.135	0.046	-0.100	-0.100	7.29	0.820	0.098	-0.100	-0.100	-0.100	-0.100	-0.100	$^{14}_{15.37}$	1.536	0.150	0.150	-0.268	-0.100	-0.100	-0.100	$^{14}_{15.37}$	1.536	0.150	0.150	-0.268	-0.100	-0.100	-0.100
$^{37}_{27.37}$	0.548	0.139	0.046	-0.104	-0.104	7.25	0.818	0.098	-0.104	-0.104	-0.104	-0.104	-0.104	$^{14}_{15.41}$	1.543	0.150	0.150	-0.268	-0.104	-0.104	-0.104	$^{14}_{15.41}$	1.543	0.150	0.150	-0.268	-0.104	-0.104	-0.104
$^{38}_{28.38}$	0.556	0.143	0.046	-0.108	-0.108	7.21	0.816	0.098	-0.108	-0.108	-0.108	-0.108	-0.108	$^{14}_{15.45}$	1.550	0.150	0.150	-0.268	-0.108	-0.108	-0.108	$^{14}_{15.45}$	1.550	0.150	0.150	-0.268	-0.108	-0.108	-0.108
$^{39}_{29.39}$	0.564	0.147	0.046	-0.112	-0.112	7.17	0.814	0.098	-0.112	-0.112	-0.112	-0.112	-0.112	$^{14}_{15.49}$	1.557	0.150	0.150	-0.268	-0.112	-0.112	-0.112	$^{14}_{15.49}$	1.557	0.150	0.150	-0.268	-0.112	-0.112	-0.112
$^{40}_{30.40}$	0.572	0.151	0.046	-0.116	-0.116	7.13	0.812	0.098	-0.116	-0.116	-0.116	-0.116	-0.116	$^{14}_{15.53}$	1.564	0.150	0.150	-0.268	-0.116	-0.116	-0.116	$^{14}_{15.53}$	1.564	0.150	0.150	-0.268	-0.116	-0.116	-0.116
$^{41}_{31.41}$	0.580	0.155	0.046	-0.120	-0.120	7.09	0.810	0.098	-0.120	-0.120	-0.120	-0.120	-0.120	$^{14}_{15.57}$	1.571	0.150	0.150	-0.268	-0.120	-0.120	-0.120	$^{14}_{15.57}$	1.571	0.150	0.150	-0.268	-0.120	-0.120	-0.120
$^{42}_{32.42}$	0.588	0.159	0.046	-0.124	-0.124	7.05	0.808	0.098	-0.124	-0.124	-0.124	-0.124	-0.124	$^{14}_{15.61}$	1.578	0.150	0.150	-0.268	-0.124	-0.124	-0.124	$^{14}_{15.61}$	1.578	0.150	0.150	-0.268	-0.124	-0.124	-0.124
$^{43}_{33.43}$	0.596	0.163	0.046	-0.128	-0.128	7.01	0.806	0.098	-0.128	-0.128	-0.128	-0.128	-0.128	$^{14}_{15.65}$	1.585	0.150	0.150	-0.268	-0.128	-0.128	-0.128	$^{14}_{15.65}$	1.585	0.150	0.150	-0.268	-0.128	-0.128	-0.128
$^{44}_{34.44}$	0.604	0.167	0.046	-0.132	-0.132	6.97	0.804	0.098	-0.132	-0.132	-0.132	-0.132	-0.132	$^{14}_{15.69}$	1.592	0.150	0.150	-0.268	-0.132	-0.132	-0.132	$^{14}_{15.69}$	1.592	0.150	0.150	-0.268	-0.132	-0.132	-0.132
$^{45}_{35.45}$	0.612	0.171	0.046	-0.136	-0.136	6.93	0.802	0.098	-0.136	-0.136	-0.136	-0.136	-0.136	$^{14}_{15.73}$	1.599	0.150	0.150	-0.268	-0.136	-0.136	-0.136	$^{14}_{15.73}$	1.599	0.150	0.150	-0.268	-0.136	-0.136	-0.136
$^{46}_{36.46}$	0.620	0.175	0.046	-0.140	-0.140	6.89	0.800	0.098	-0.140	-0.140	-0.140	-0.140	-0.140	$^{14}_{15.77}$	1.606	0.150	0.150	-0.268	-0.140	-0.140	-0.140	$^{14}_{15.77}$	1.606	0.150	0.150	-0.268	-0.140	-0.140	-0.140
$^{47}_{37.47}$	0.628	0.179	0.046	-0.144	-0.144	6.85	0.798	0.098	-0.144	-0.144	-0.144	-0.144	-0.144	$^{14}_{15.81}$	1.613	0.150	0.150	-0.268	-0.144	-0.144	-0.144	$^{14}_{15.81}$	1.613	0.150	0.150	-0			

Spinnellars removed

TABLE XIII.-- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; INBOARD FLAPS DEFLECTED 60°

(a) $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$

[illegible]

propellers removed

TABLE XIII. — LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL REMOVED; INBOARD FLAPS DEFLECTED 60° — Concluded

(b) $M = 0.082$; $R = 4,000,000$; $\beta = 31^\circ$

[illegible]

(c) $M = 0.123$; $R = 4,000,000$; $\beta = 31^\circ$

[illegible]

TABLE XIV.- LONGITUDINAL CHARACTERISTICS OF A FOUR-ENGINE PROPELLER-DRIVEN AIRPLANE CONFIGURATION
HAVING A 40° SWEEP WING OF ASPECT RATIO 10. TAIL HEIGHT, 0.10 b/2; INBOARD FLAPS DEFLECTED 60°
M = 0.082; R = 4,000,000; $\beta = 26^\circ$; $i_t = 0^\circ$

α	C_L	C_X	C_m	$T C_{av}$	J_{av}	$C_{P_{av}}$	α	C_L	C_X	C_m	$T C_{av}$	J_{av}	$C_{P_{av}}$	α	C_L	C_X	C_m	$T C_{av}$	J_{av}	$C_{P_{av}}$
2.26	0.735	0.086	0.137	-	-	-	8.39	1.236	0.121	0.019	-	-	-	14.46	1.587	0.234	-0.069	-	-	-
2.26	0.739	0.087	0.139	-	1.081	0.007	8.39	1.250	0.128	0.023	-0.009	1.087	0.004	14.45	1.580	0.255	0.006	-0.008	1.091	0.013
2.28	0.777	0.077	0.163	-	0.946	0.049	8.41	1.313	0.101	0.023	0.037	0.950	0.049	14.48	1.674	0.227	0.037	0.038	0.946	-
2.30	0.827	0.022	0.191	-	0.849	0.080	8.44	1.385	0.070	0.021	0.087	0.854	0.081	14.57	1.913	0.146	0.018	0.093	0.845	0.088
2.33	0.905	-0.031	0.235	-	0.745	0.108	8.48	1.499	0.029	0.146	0.168	0.749	0.109	14.60	2.014	0.118	0.078	0.168	0.746	0.115
2.37	1.004	-0.118	0.284	-	0.647	0.138	8.53	1.635	-0.048	0.215	0.309	0.646	0.137	14.64	2.161	0.063	0.151	0.298	0.648	0.140
2.44	1.155	-0.248	0.349	-	0.548	0.163	8.60	1.836	-0.166	0.300	0.523	0.550	0.168	14.72	2.391	-0.036	0.261	0.523	0.547	0.169
2.51	1.335	-0.442	0.424	-	0.470	0.188	8.69	2.095	-0.339	0.417	0.810	0.470	0.190	14.80	2.652	-0.166	0.387	0.782	0.472	0.190
4.30	0.905	0.095	0.091	-	-	-	10.43	1.398	0.139	-0.011	-	-	-	16.46	1.655	0.298	-0.071	-	-	-
4.30	0.907	0.098	0.095	-	1.075	0.005	10.44	1.428	0.146	0.005	-0.007	1.078	0.011	16.45	1.627	0.310	-0.001	-0.002	1.075	0.025
4.32	0.963	0.068	0.124	-	0.945	0.050	10.45	1.493	0.120	0.032	0.039	0.945	0.055	16.49	1.743	0.287	0.025	0.038	0.952	0.063
4.34	1.021	0.033	0.153	-	0.848	0.080	10.48	1.570	0.094	0.067	0.091	0.848	0.082	16.51	1.827	0.266	0.028	0.096	0.852	0.092
4.38	1.098	-0.021	0.194	-	0.744	0.110	10.52	1.684	0.053	0.128	0.170	0.748	0.111	16.54	1.937	0.236	0.097	0.167	0.747	0.117
4.42	1.212	-0.101	0.250	-	0.647	0.138	10.57	1.819	-0.013	0.191	0.292	0.652	0.138	16.59	2.098	0.203	0.159	0.294	0.649	0.145
4.49	1.398	-0.234	0.337	-	0.549	0.168	10.65	2.045	-0.129	0.291	0.521	0.549	0.166	16.70	2.448	0.066	0.298	0.513	0.549	0.174
4.58	1.609	-0.418	0.424	-	0.469	0.190	10.74	2.315	-0.296	0.400	0.801	0.470	0.192	16.79	2.712	-0.063	0.392	0.674	0.497	0.188
6.34	1.073	0.106	0.051	-	-	-	12.46	1.533	0.177	-0.028	-	-	-	18.45	1.667	0.394	-0.093	-	-	-
6.35	1.088	0.111	0.057	-	1.081	0.005	12.46	1.569	0.181	-0.021	-0.008	1.083	0.010	18.46	1.711	0.394	-0.008	-0.001	1.080	0.032
6.37	1.138	0.081	0.086	-	0.946	0.050	12.50	1.662	0.144	0.014	0.037	0.948	0.053	18.47	1.769	0.382	0.025	0.041	0.945	0.073
6.40	1.206	0.049	0.121	-	0.845	0.082	12.52	1.748	0.125	0.043	0.090	0.848	0.085	18.51	1.884	0.346	0.074	0.095	0.844	0.097
6.43	1.302	0	0.171	-	0.748	0.111	12.56	1.858	0.080	0.114	0.165	0.749	0.113	18.54	1.977	0.316	0.123	0.167	0.747	-
6.48	1.428	-0.075	0.227	-	0.649	0.138	12.61	2.008	0.016	0.178	0.300	0.648	0.140	18.58	2.154	0.266	0.204	0.309	0.639	0.148
6.55	1.624	-0.198	0.318	-	0.549	0.167	12.67	2.198	-0.073	0.257	0.488	0.561	0.166	18.71	2.526	0.171	0.323	0.517	0.547	0.175
6.63	1.860	-0.381	0.421	-	0.469	0.189	12.77	2.496	-0.240	0.380	0.792	0.472	0.190	18.75	2.692	0.091	0.389	0.666	0.499	0.185
														18.78	2.791	0.043	0.432	0.750	0.477	0.194

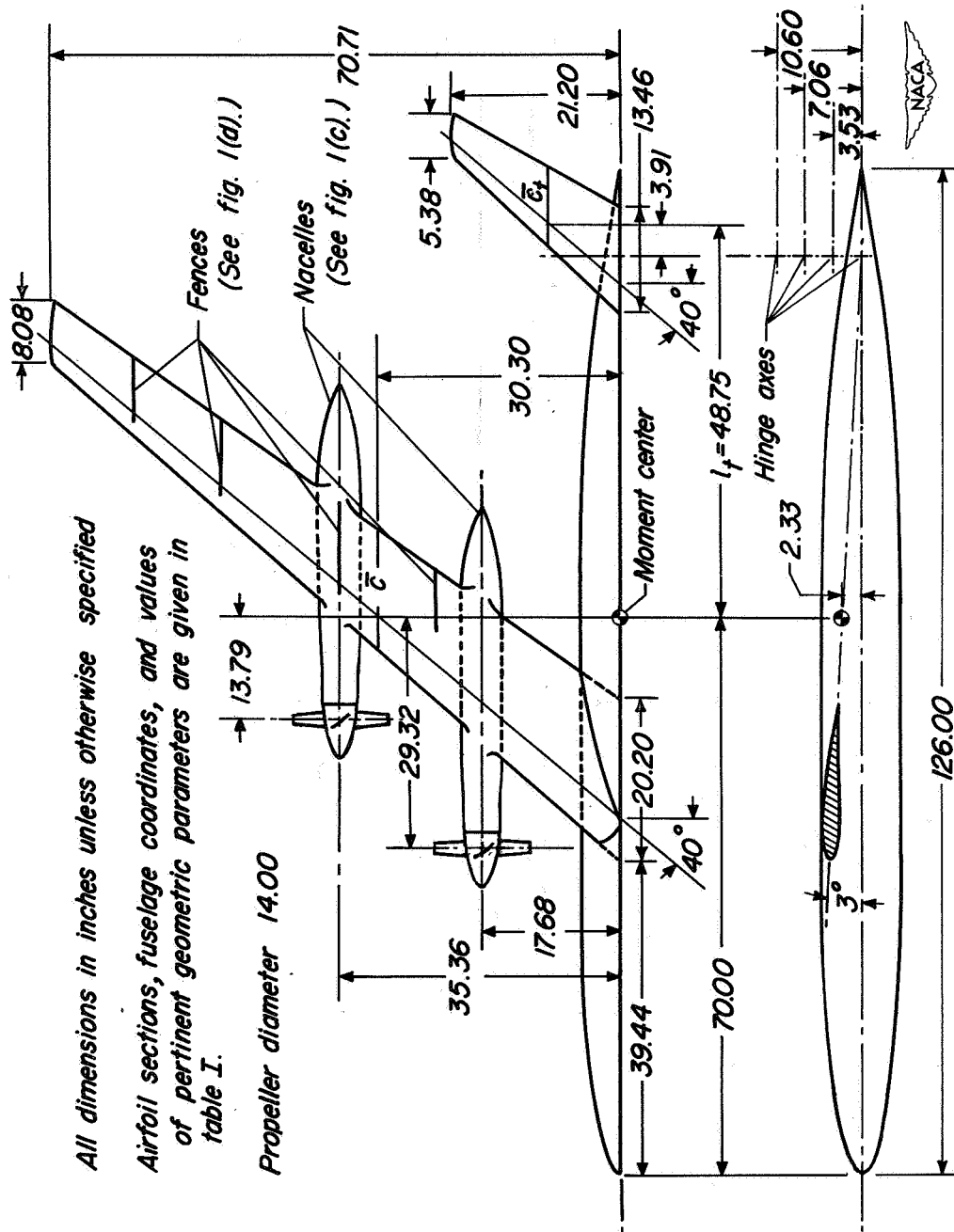
^aPropellers removed

NACA

C [REDACTED] L

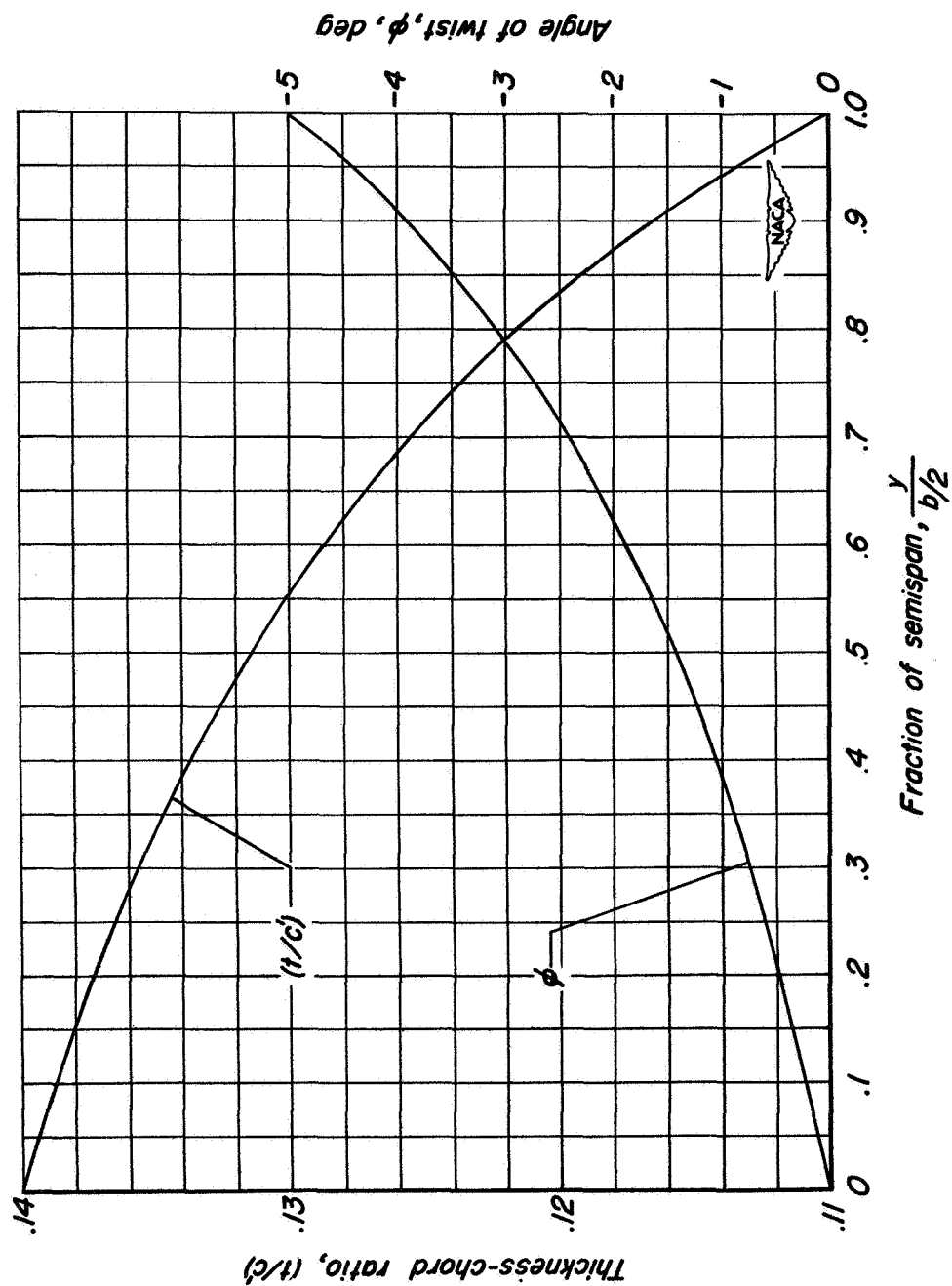
NACA RM A53I28

C [REDACTED] L



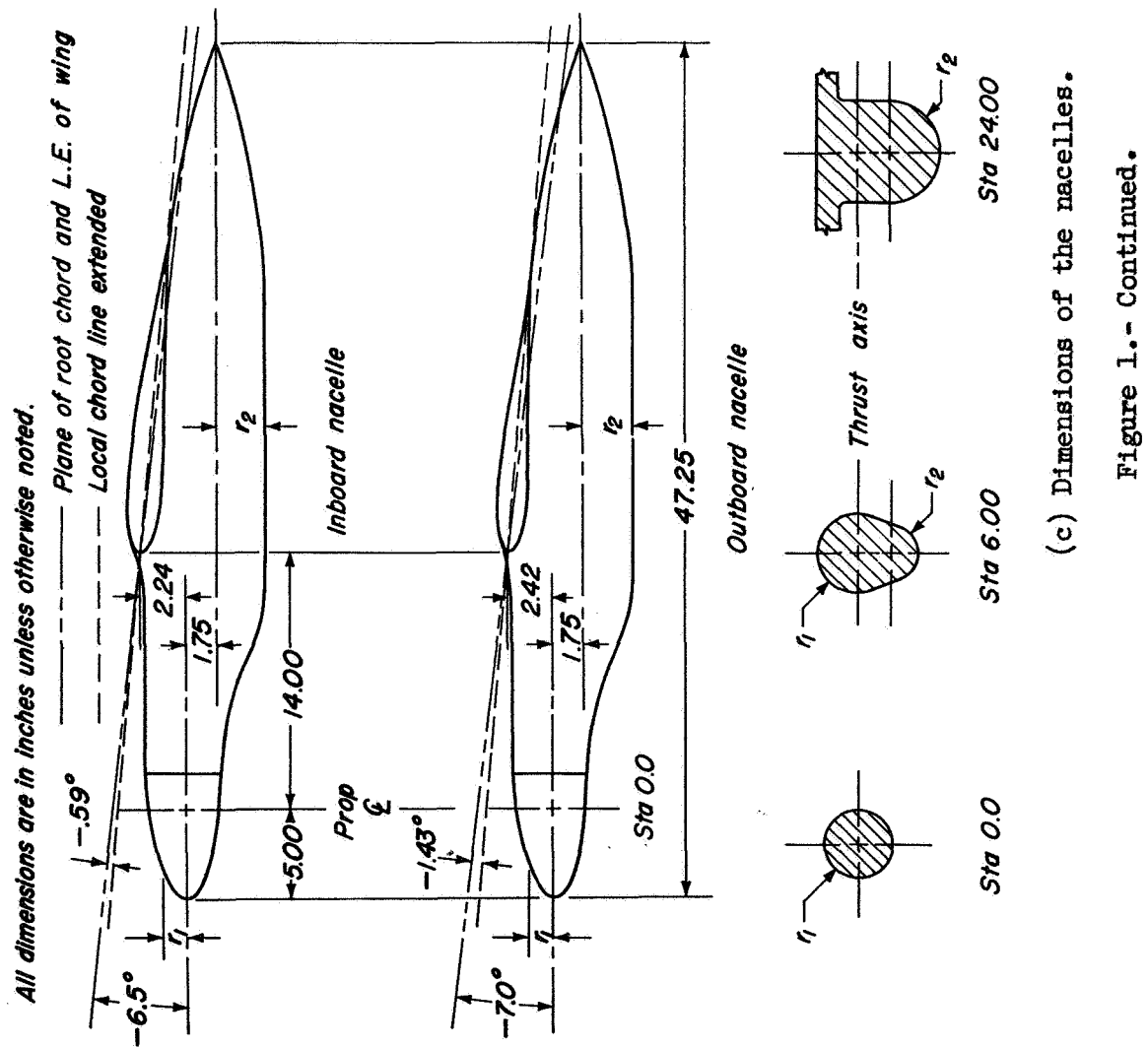
(a) Dimensions.

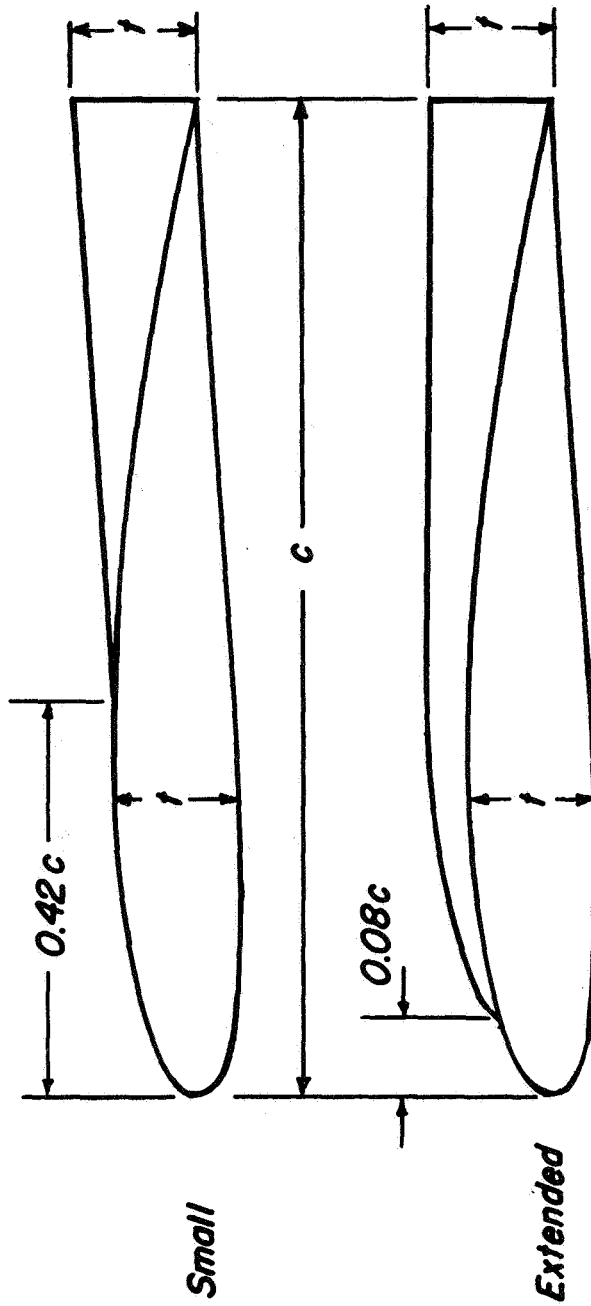
Figure 1.- Geometry of the model.



(b) Wing twist and thickness-chord ratio.

Figure 1.- Continued.



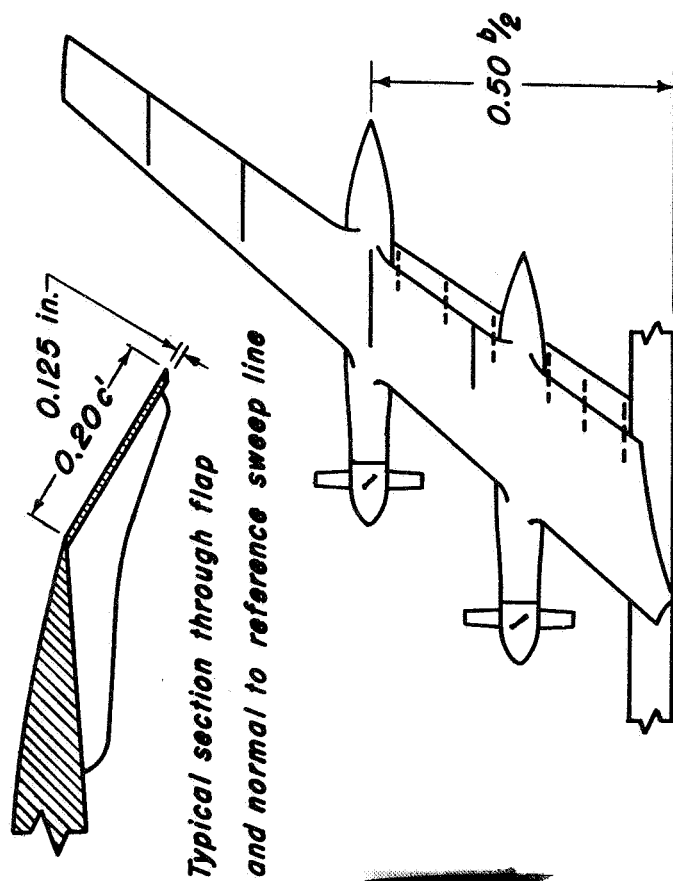


Type and location
Small at $\frac{y}{b/2} = 0.33$
Extended at $\frac{y}{b/2} = 0.50, 0.70, \text{ and } 0.85$

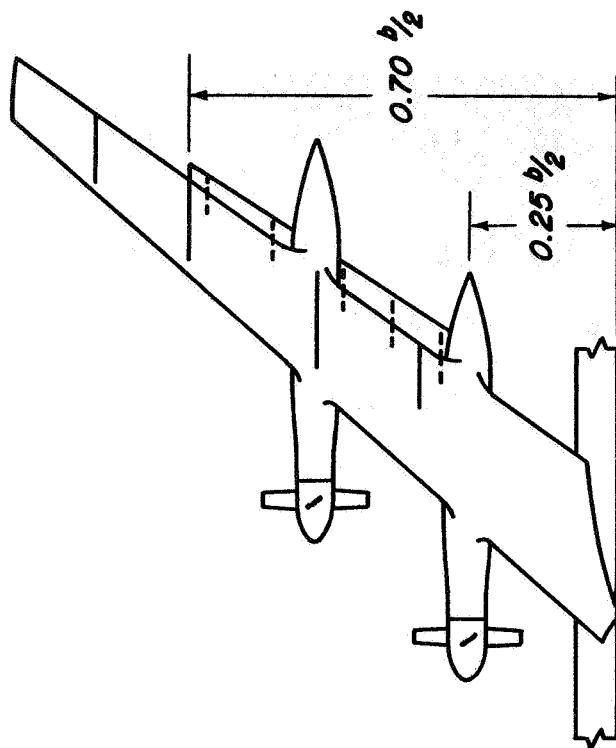


(d) Fence details.

Figure 1.- Continued.



Model with inboard flaps



Model with outboard flaps

(e) Flap details.

Figure 1.- Concluded.

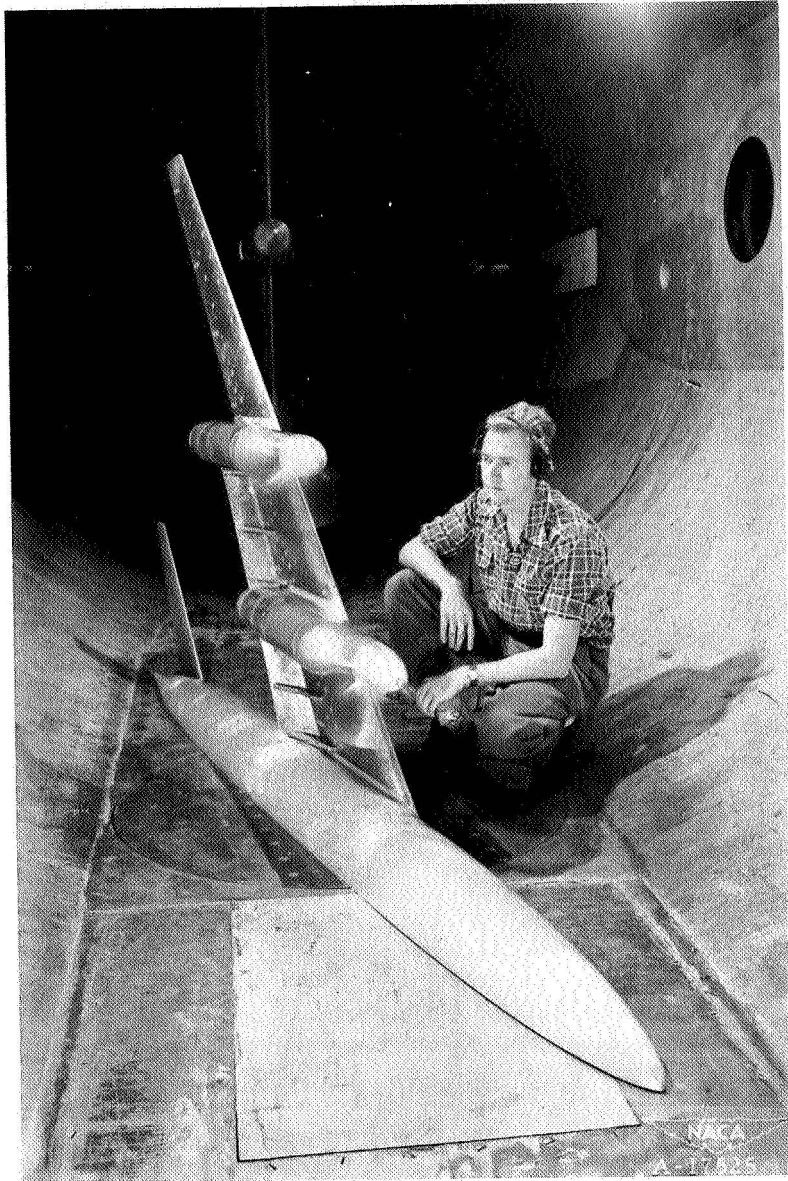


Figure 2.- Model mounted in the wind tunnel.

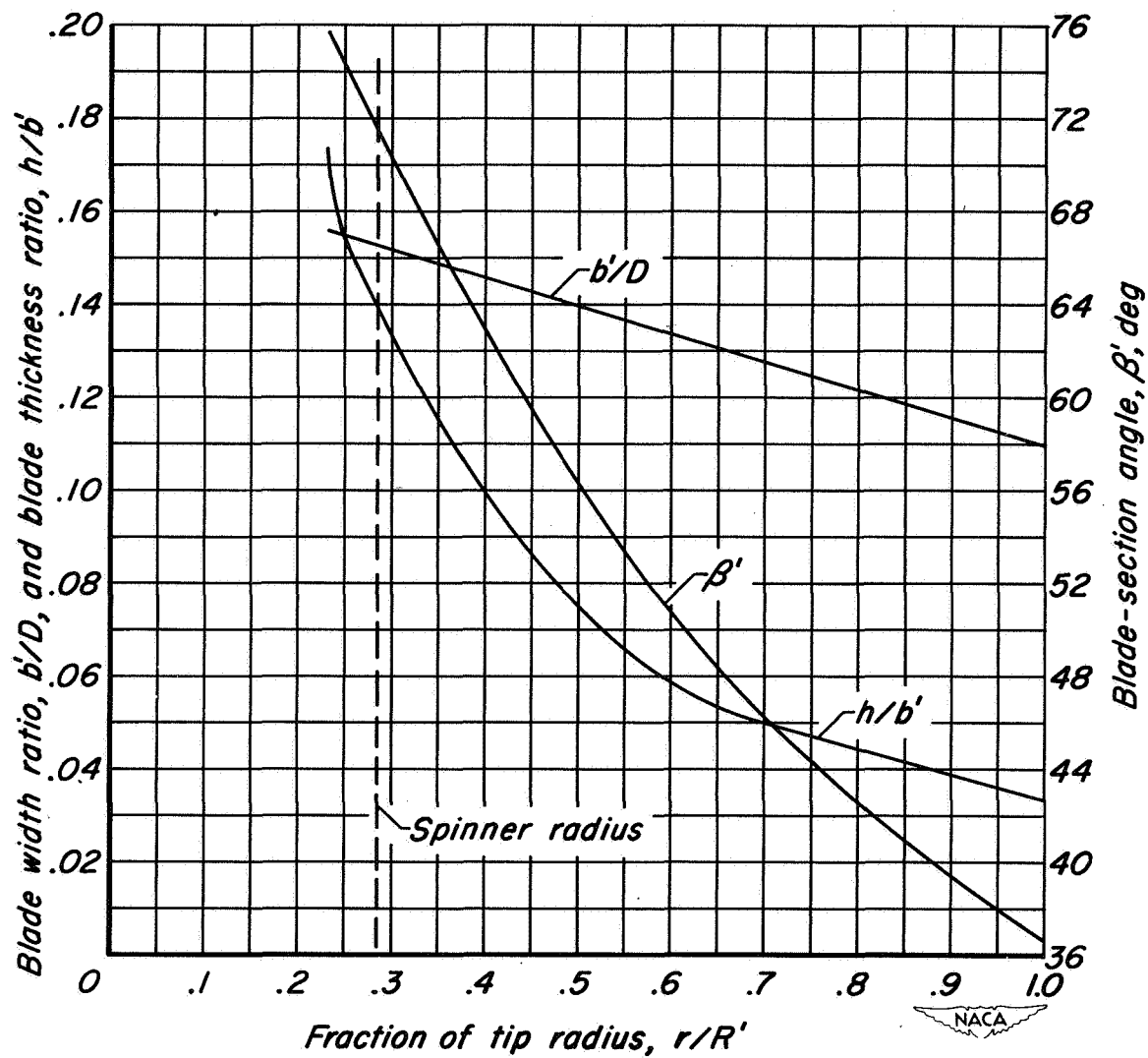


Figure 3.- Blade-form curves for the NACA 1.167-(0)(05)-058 three-blade propeller.

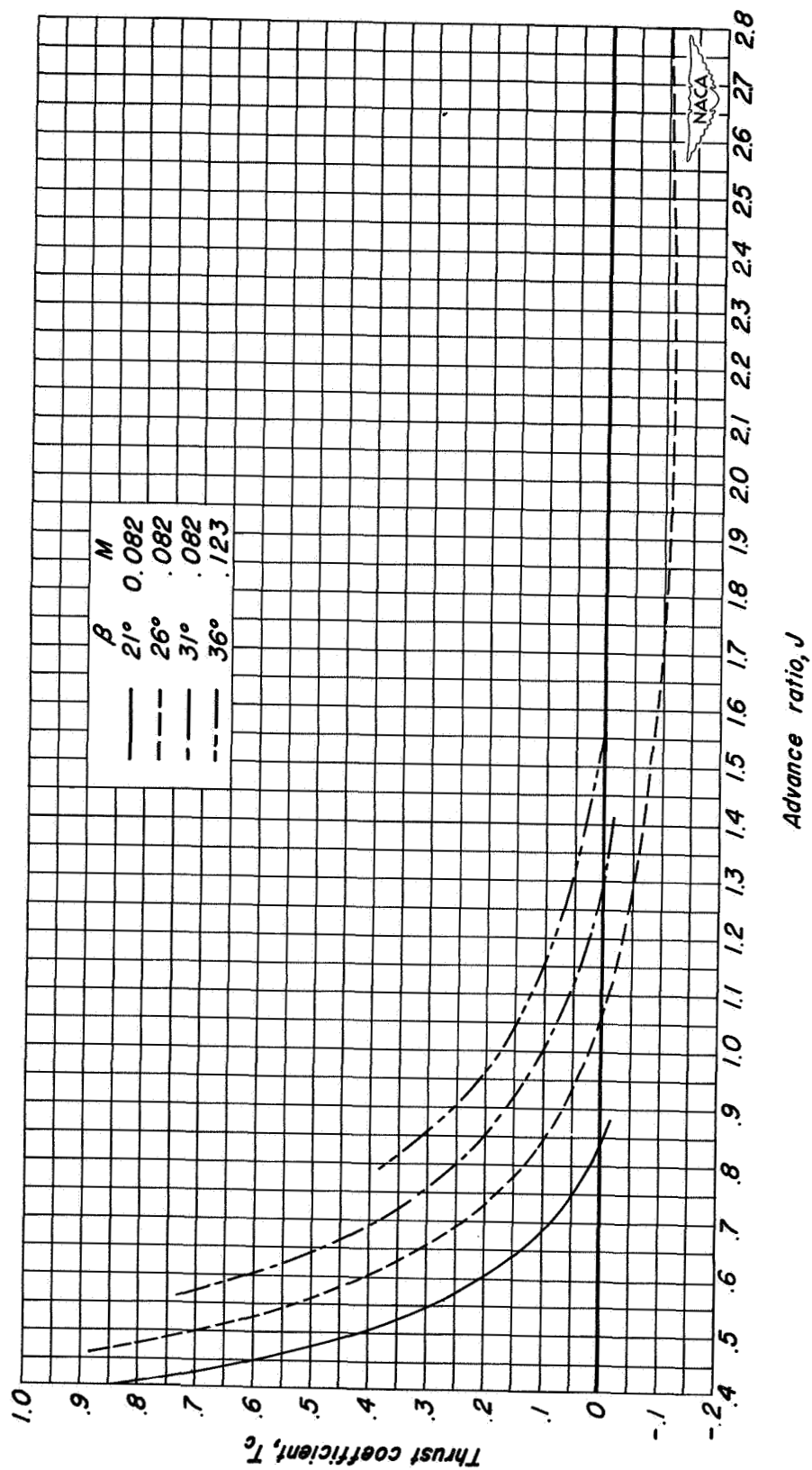


Figure 4.- The variation of T_c with J for the NACA 1.167-(0)(05)-058 propeller.
 $A = 0$; $R = 4,000,000$.

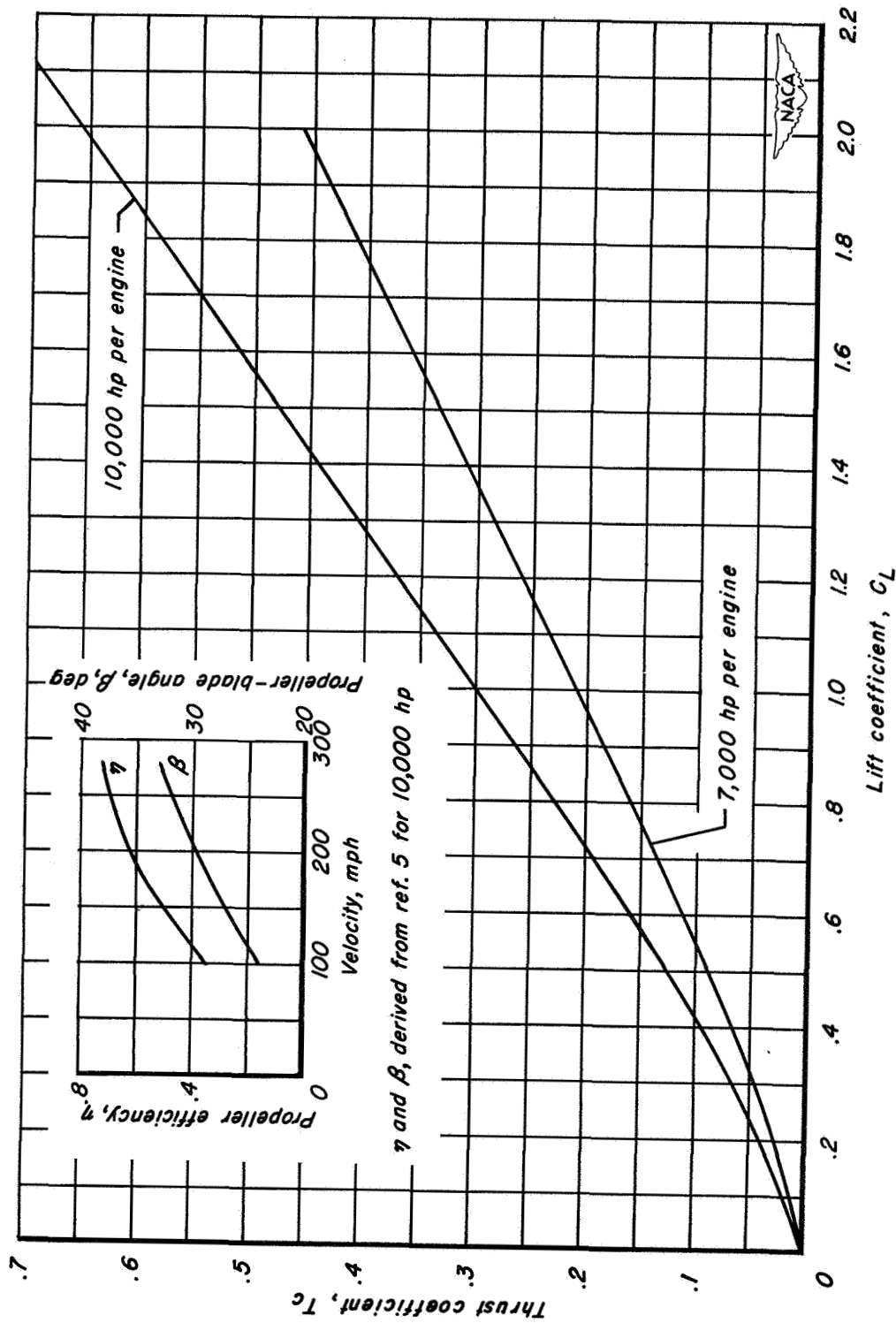
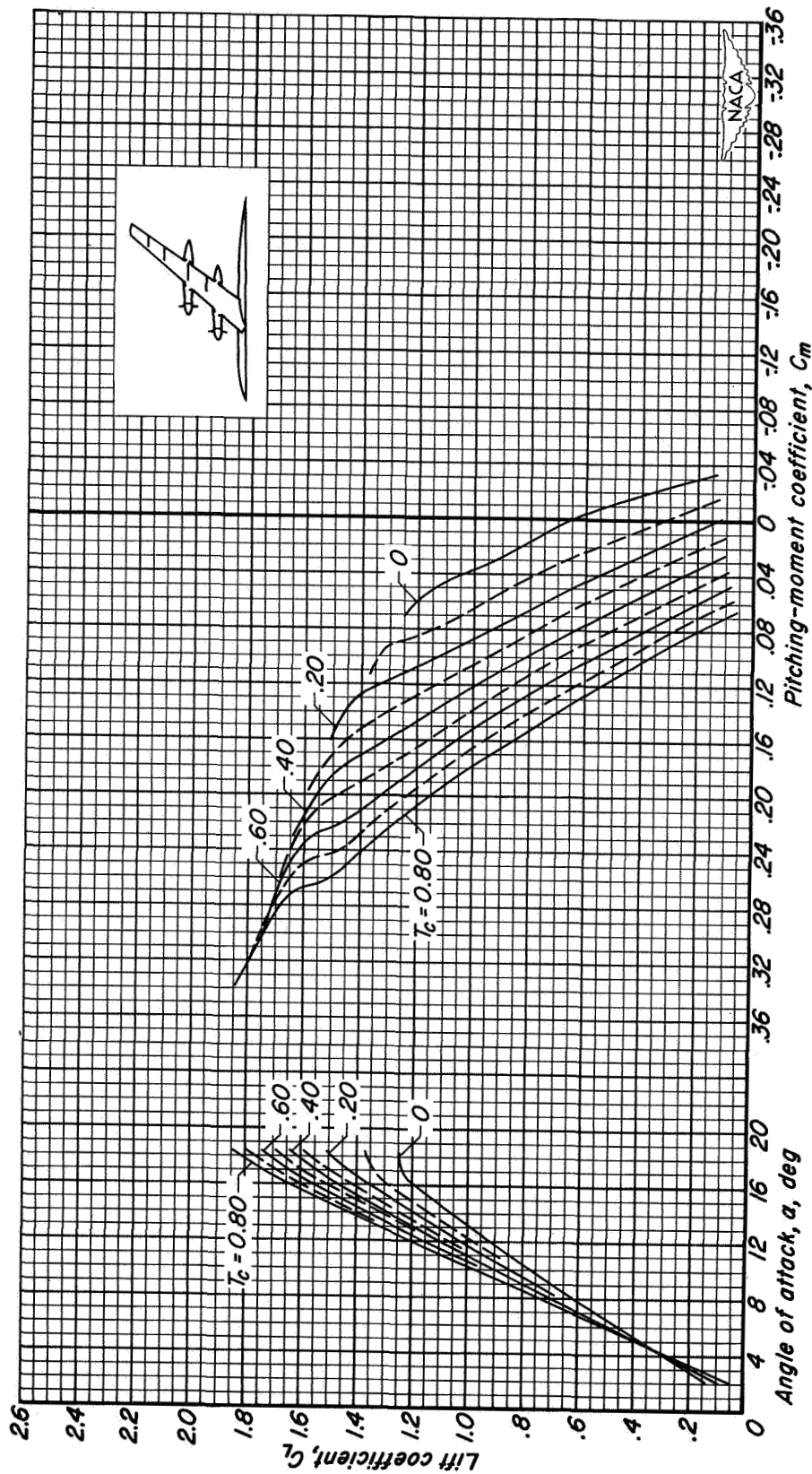
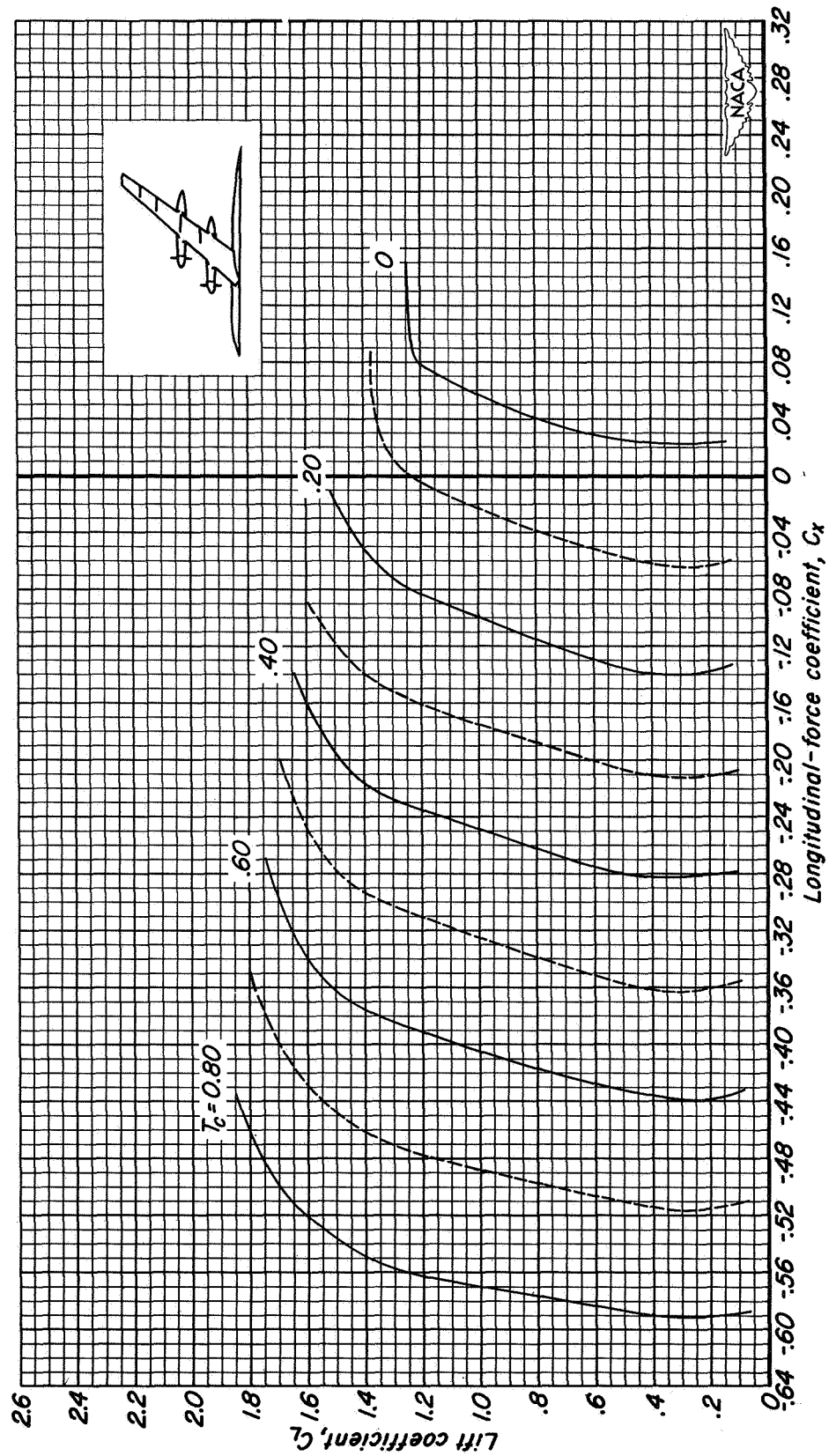


Figure 5.- The T_c vs C_L relationship for simulated full-scale constant power conditions. Wing loading = 100 lb/sq ft; propeller rotational speed = 1715 rpm; propeller diameter = 14 ft; propeller efficiency and blade angle as shown; sea level.



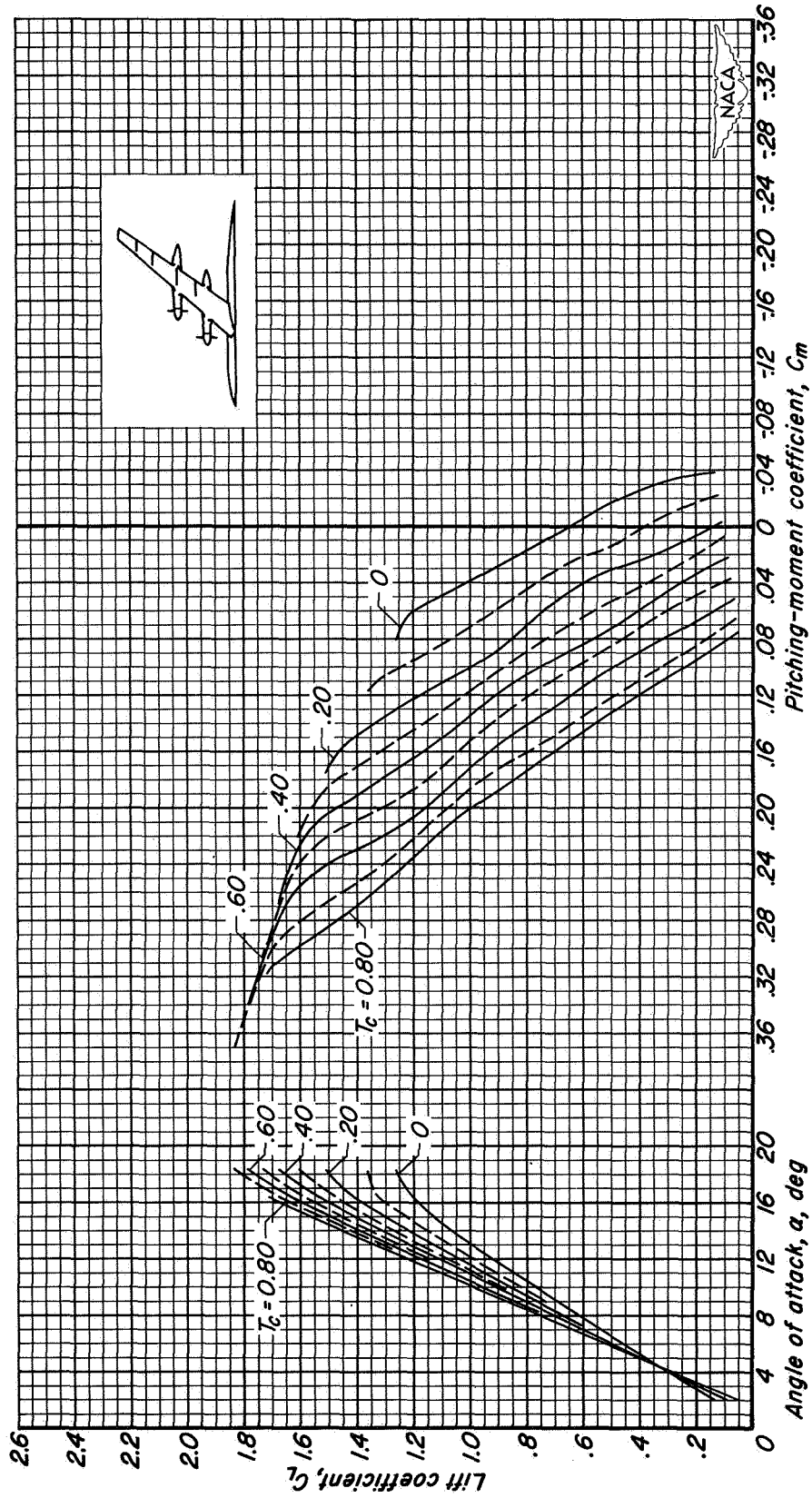
(a) C_L vs α and C_m

Figure 6.- The longitudinal characteristics of the model. Tail removed; flaps up; $M = 0.082$;
 $R = 4,000,000$; $\beta = 21^\circ$.



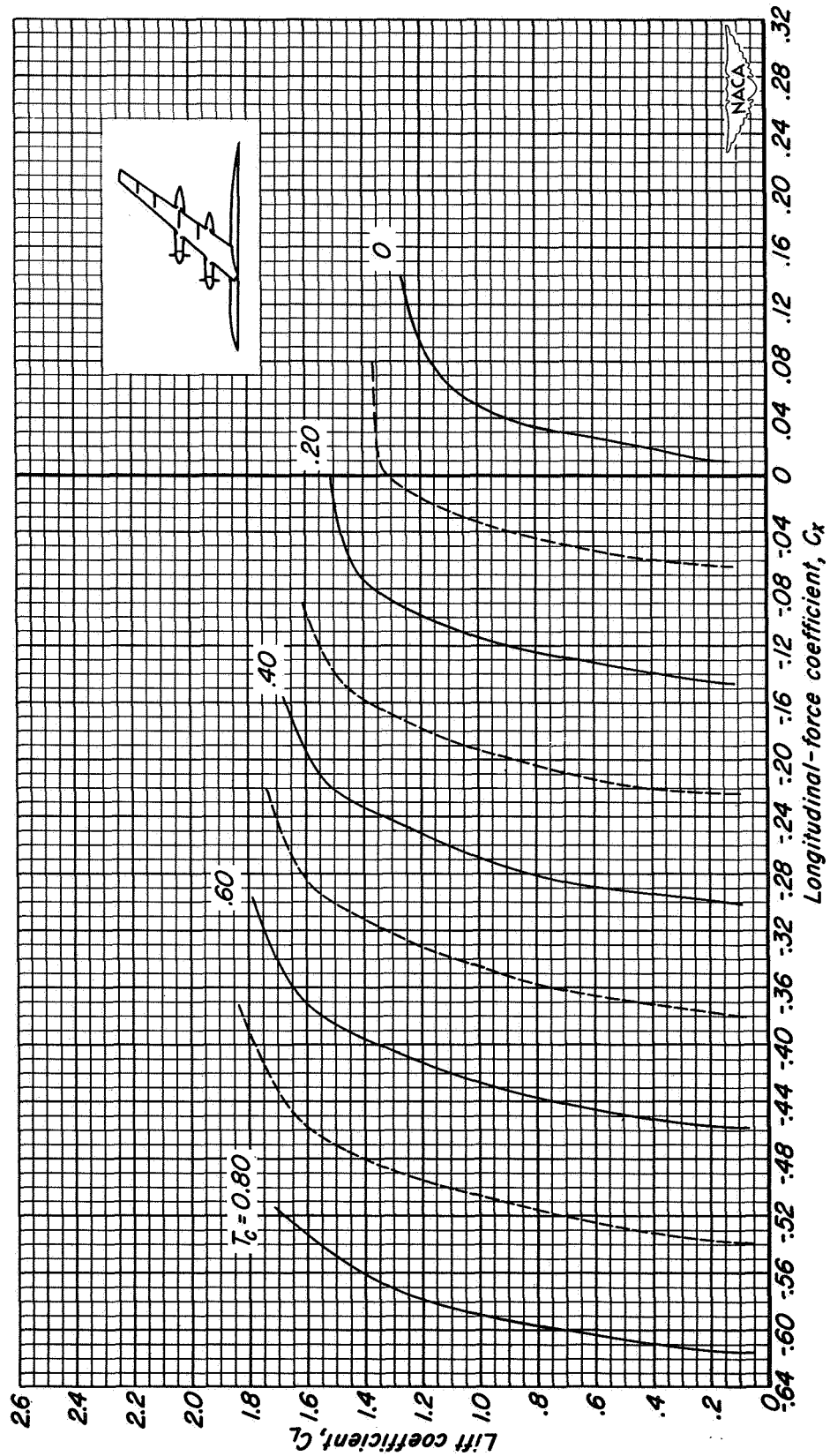
(b) C_L vs C_X

Figure 6.- Concluded.



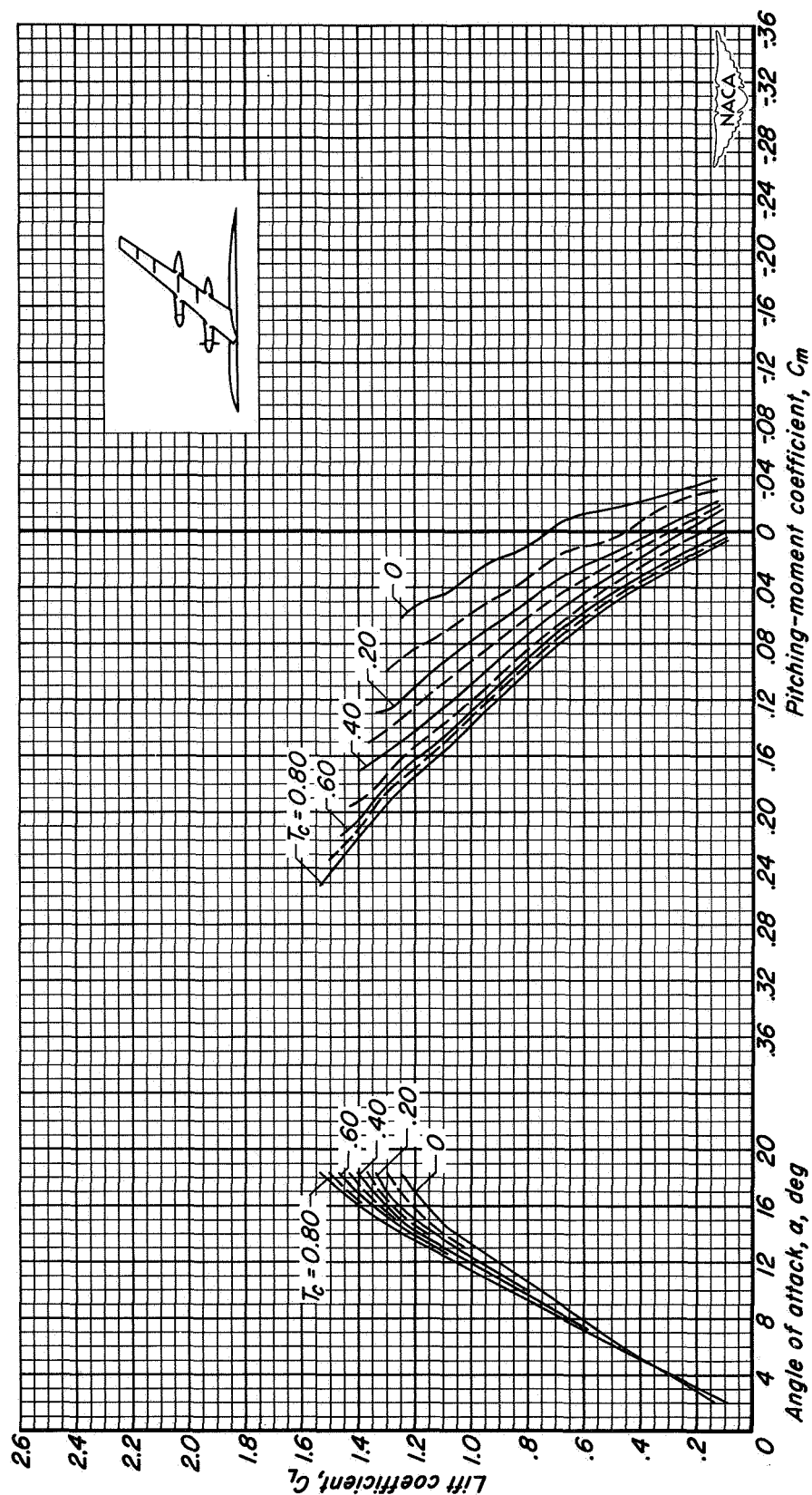
(a) C_L vs α and C_m

Figure 7.-- The longitudinal characteristics of the model. Tail removed; flaps up; $M = 0.082$;
 $R = 4,000,000$; $\beta = 26^\circ$.



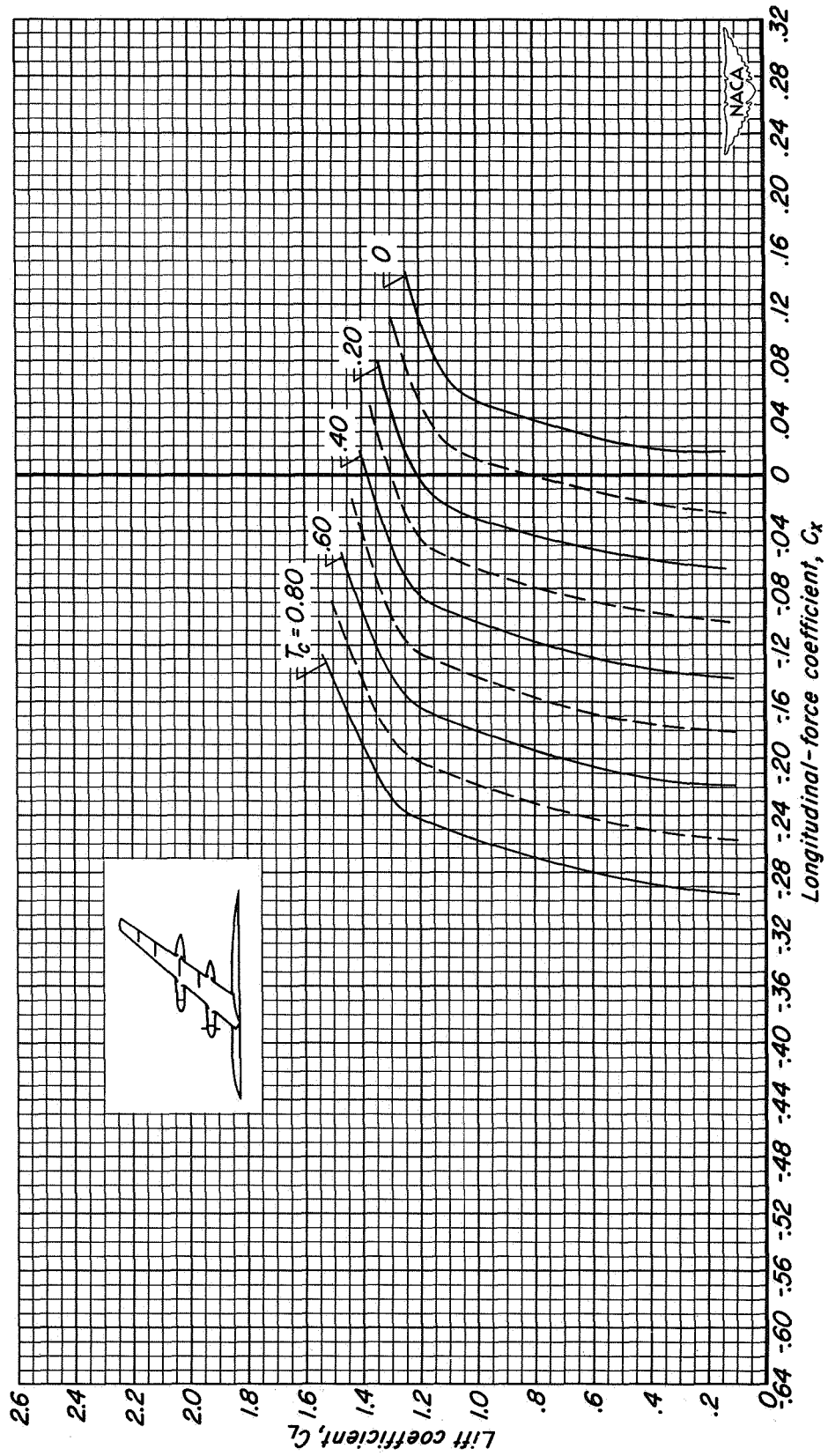
(b) C_L vs C_X

Figure 7.- Concluded.



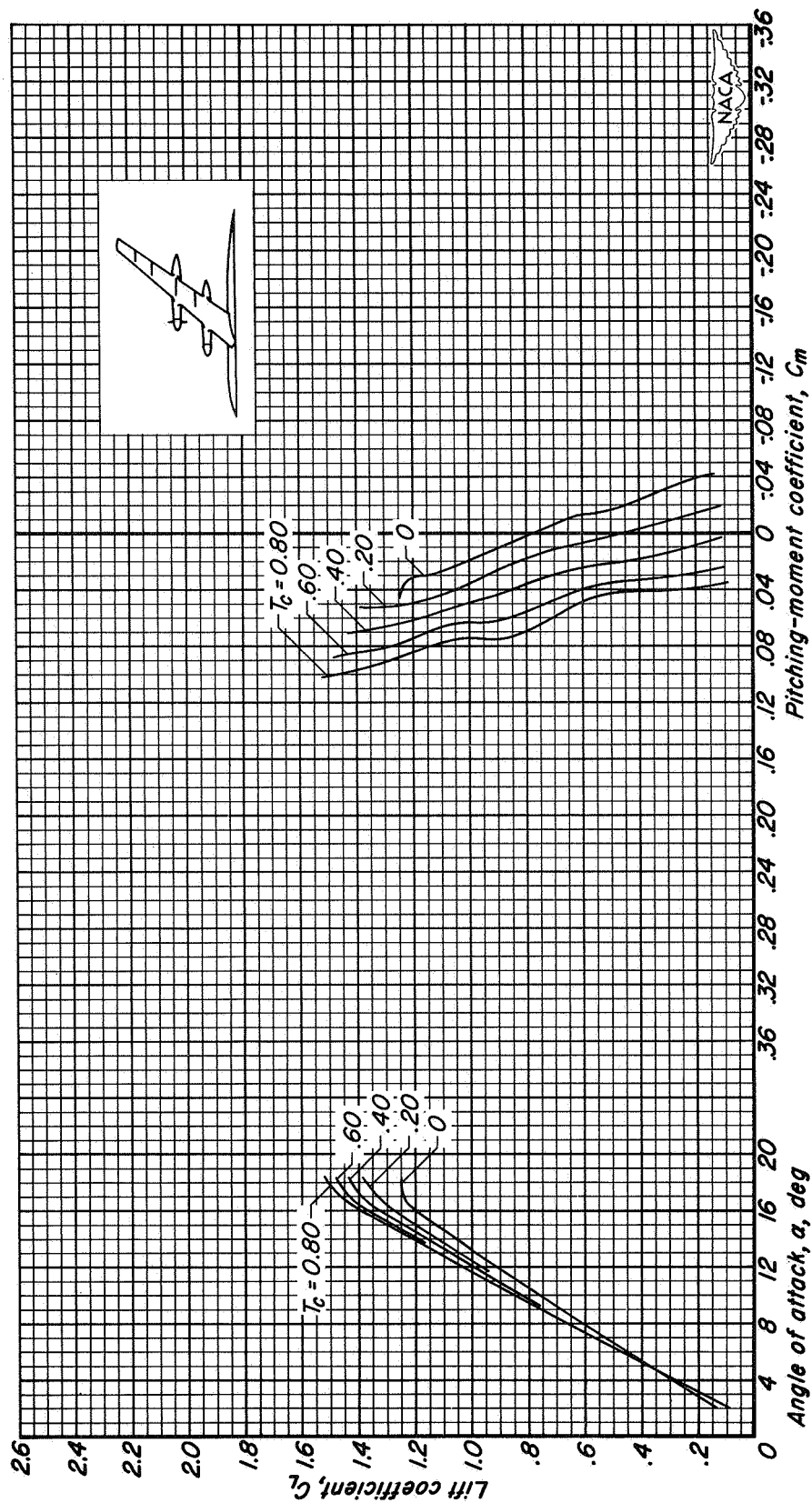
(a) C_L vs α and C_m

Figure 8.- The longitudinal characteristics of the model. Tail removed; flaps up; $M = 0.082$;
 $R = 4,000,000$; $\beta = 26^\circ$; inboard propeller only.



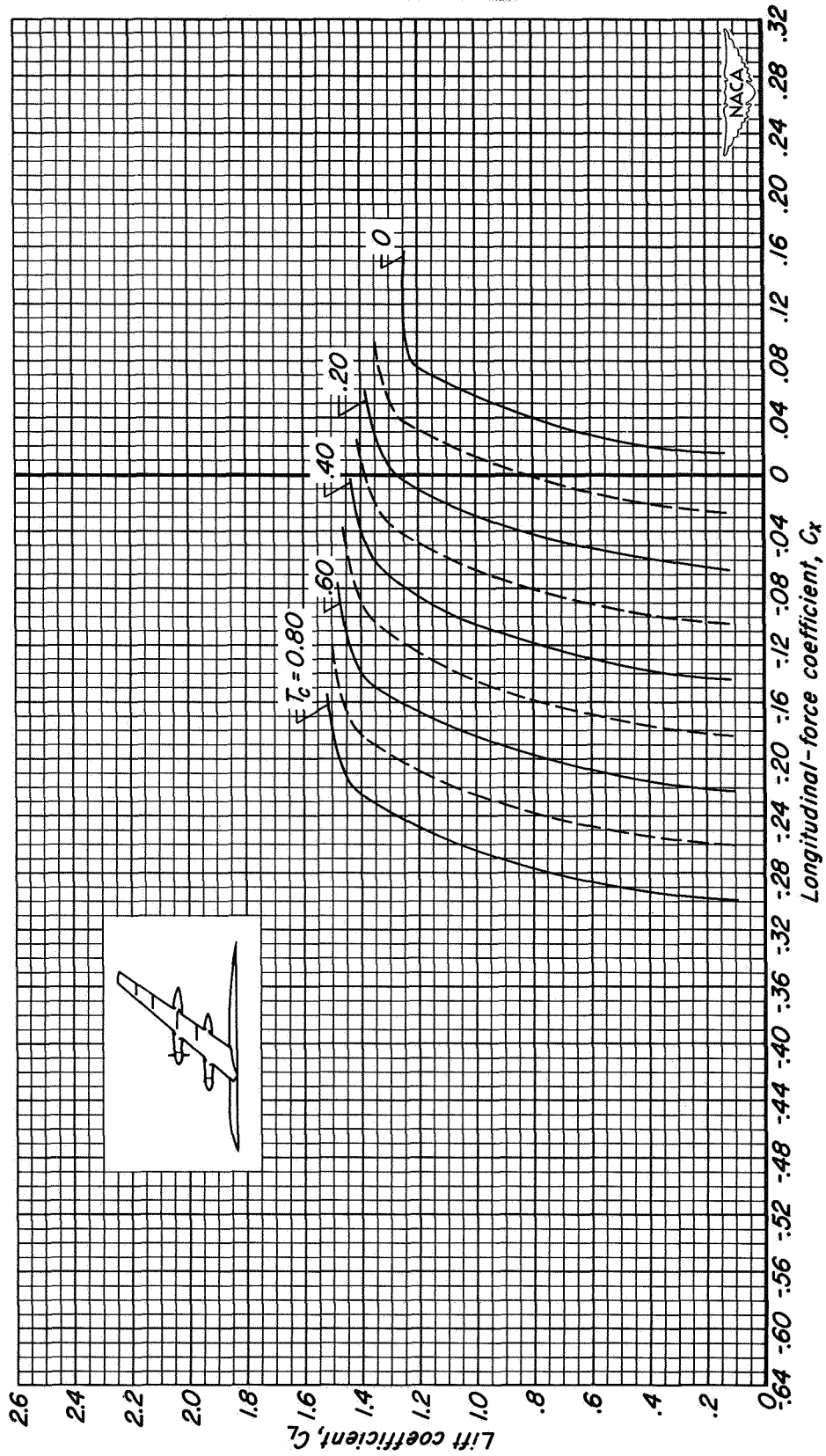
(b) C_L vs C_x

Figure 8.- Concluded.



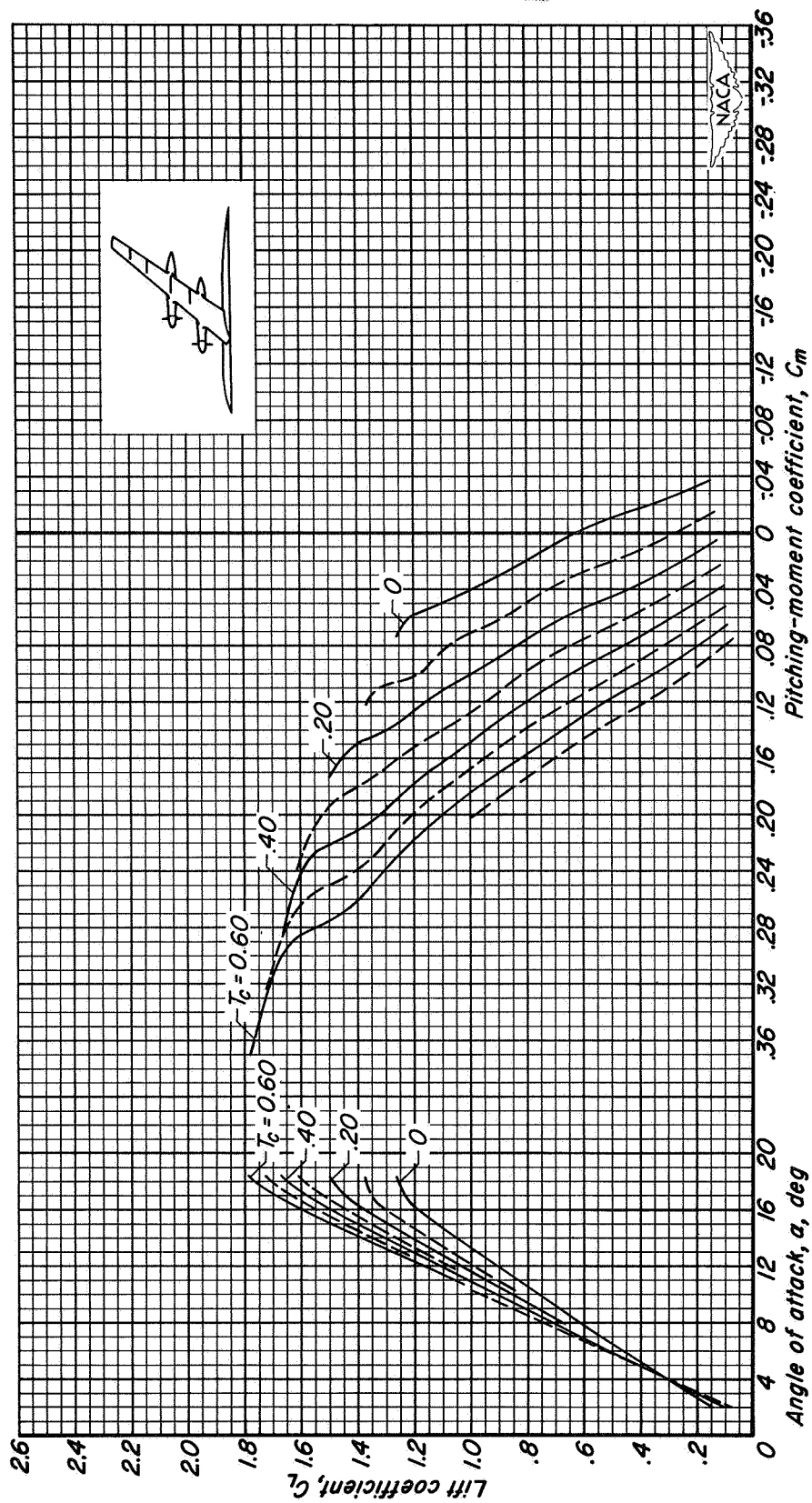
(a) C_L vs α and C_m

Figure 9.- The longitudinal characteristics of the model. Tail removed; flaps up; $M = 0.082$;
 $R = 4,000,000$; $\beta = 26^\circ$; outboard propeller only.



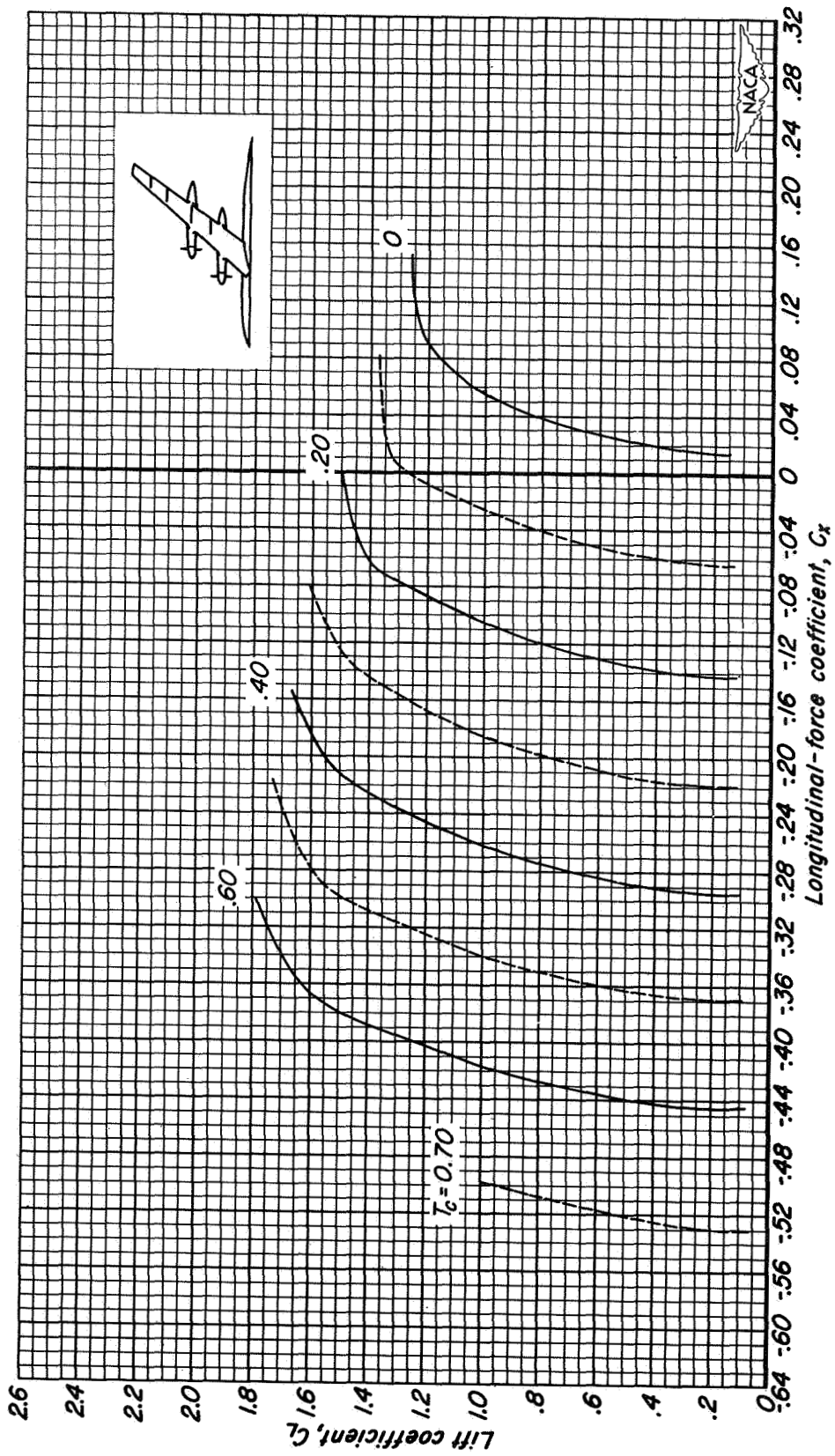
(b) C_L vs C_x

Figure 9.- Concluded.



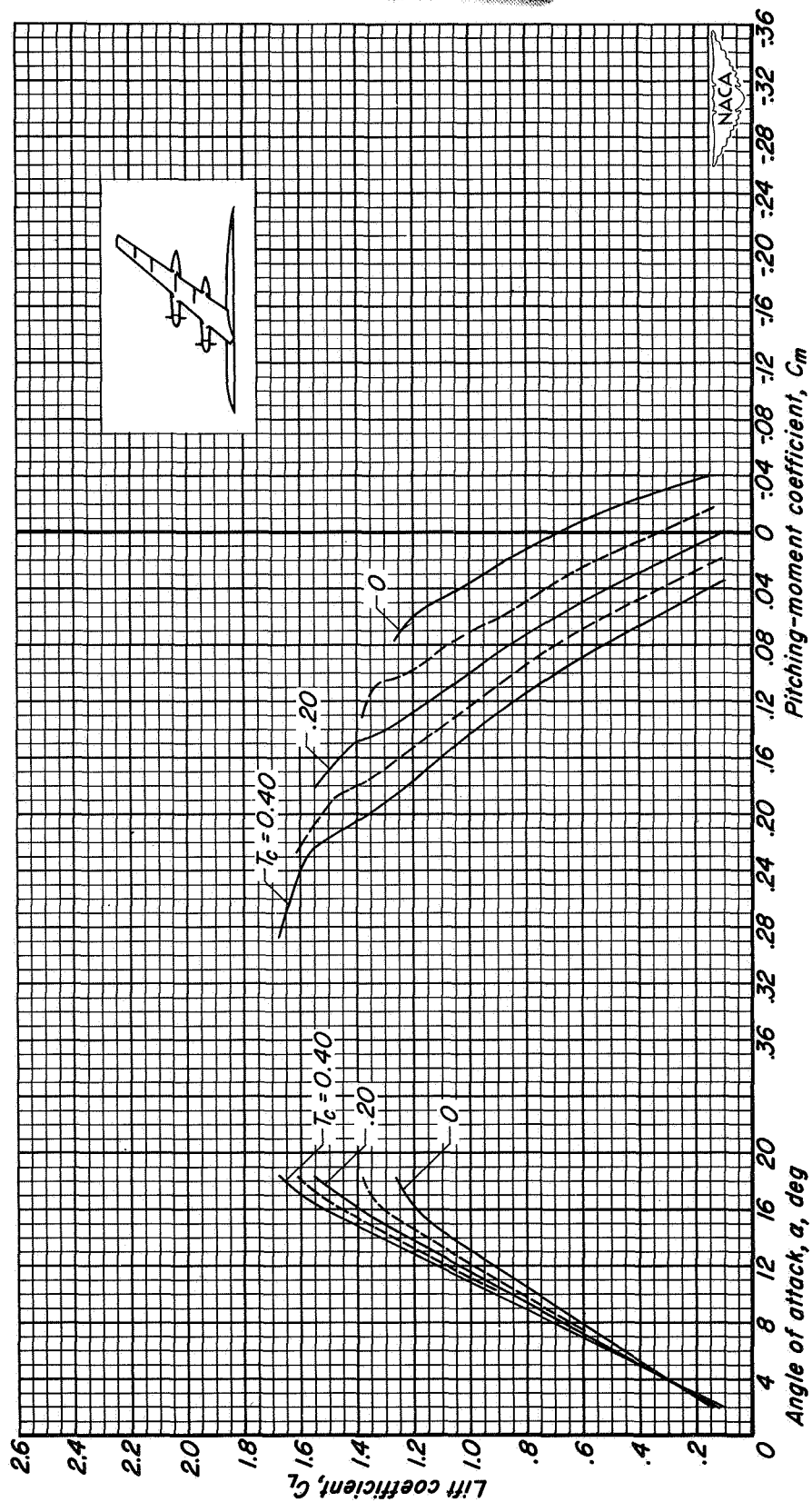
(a) C_L vs α and C_m

Figure 10.- The longitudinal characteristics of the model. Tail removed; flaps up; $M = 0.082$;
 $R = 4,000,000$; $\beta = 31^\circ$.



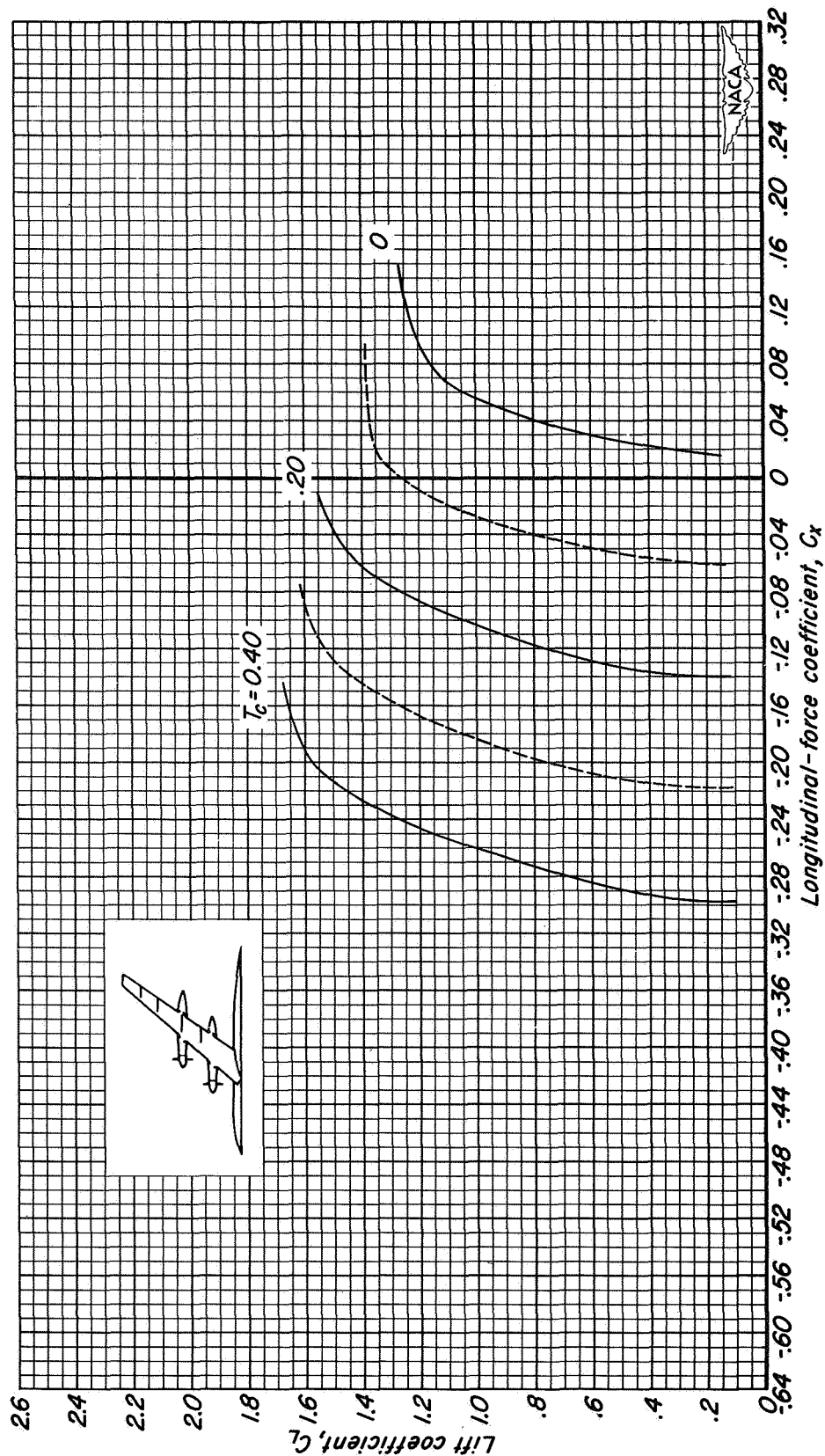
(b) C_L vs C_x

Figure 10.- Concluded.



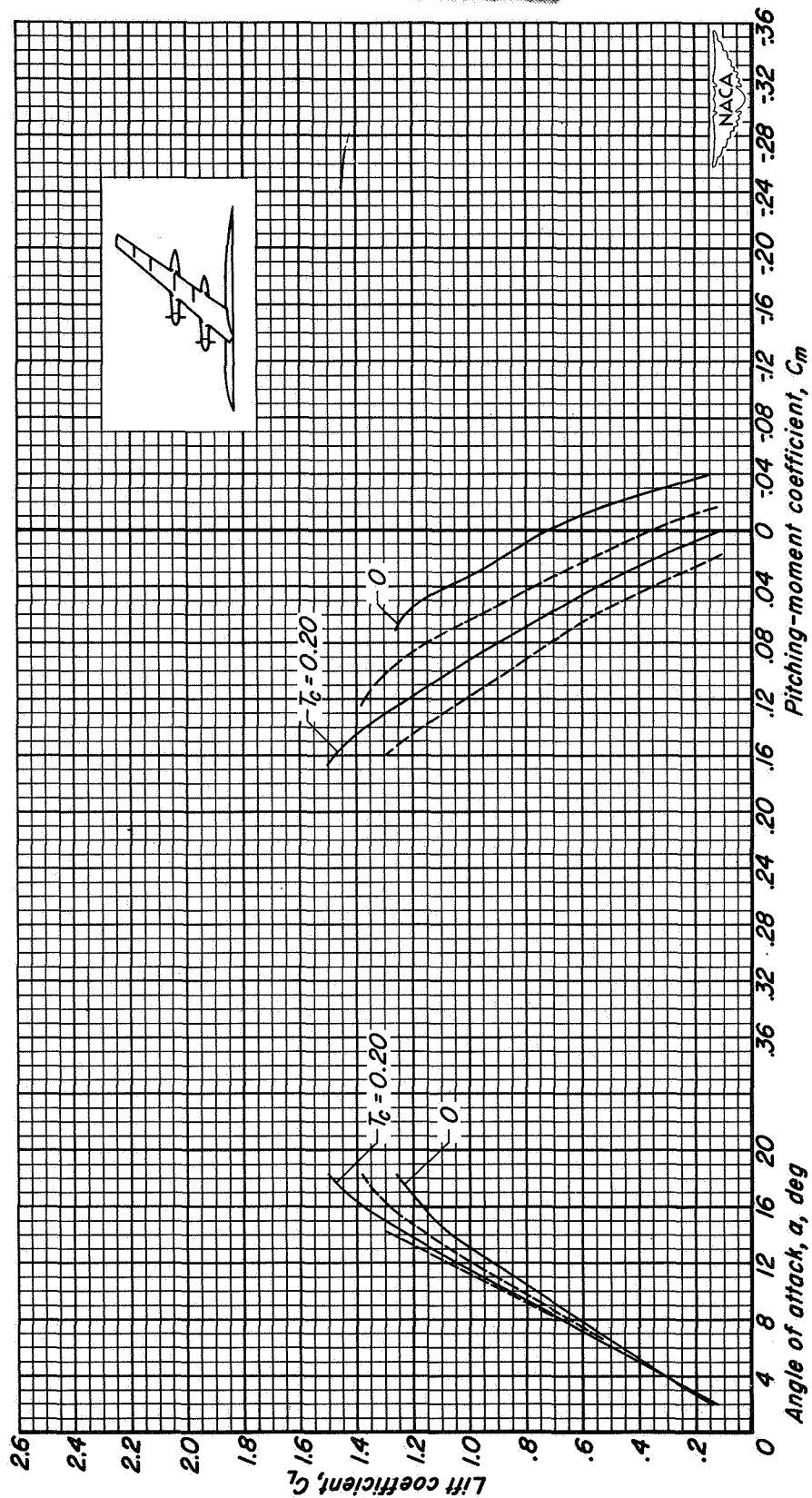
(a) C_L vs α and C_m

Figure 11.- The longitudinal characteristics of the model. Tail removed; flaps up; $M = 0.123$;
 $R = 4,000,000$; $\beta = 31^\circ$.



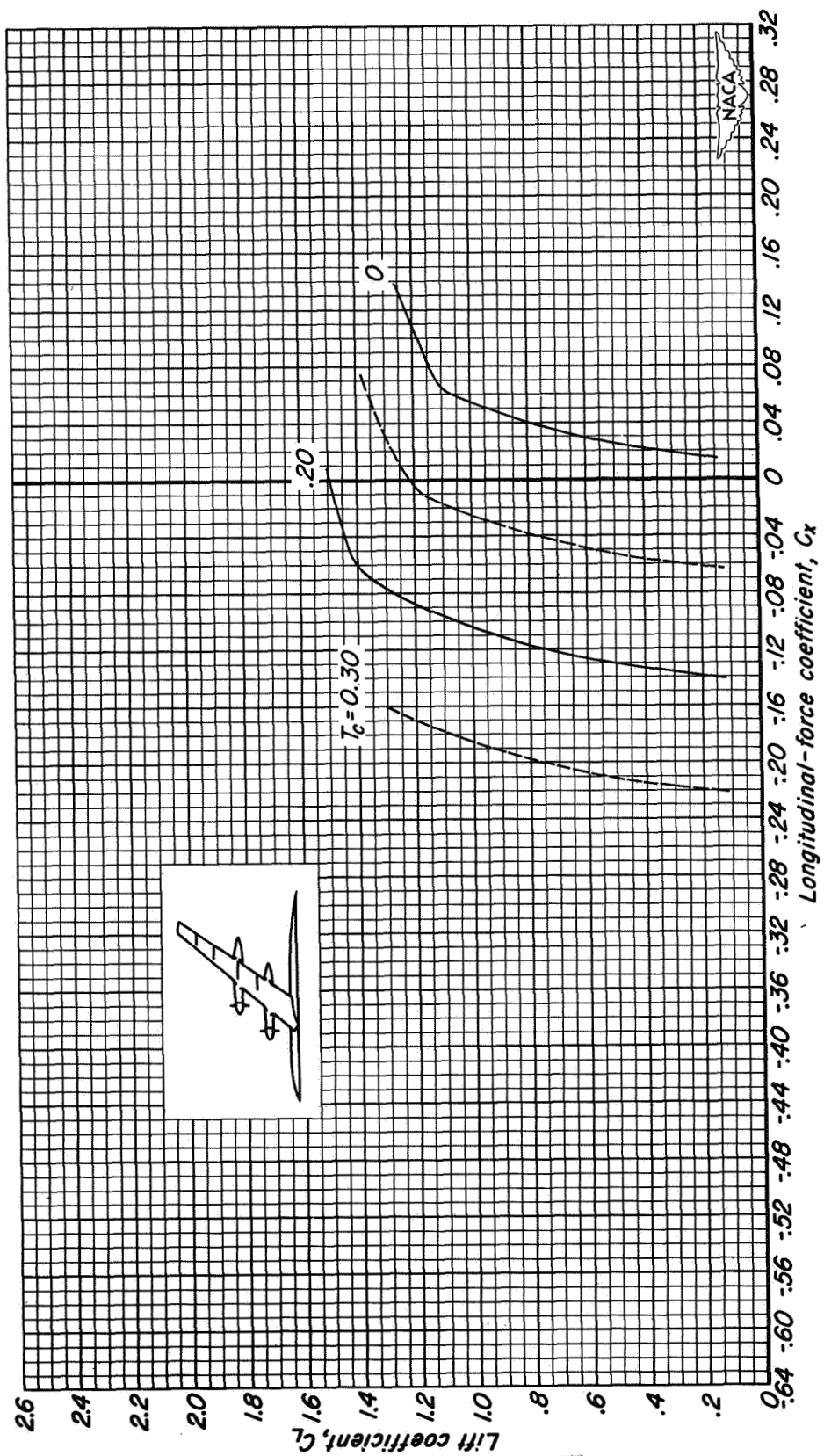
(b) C_L vs C_x

Figure 11.- Concluded.



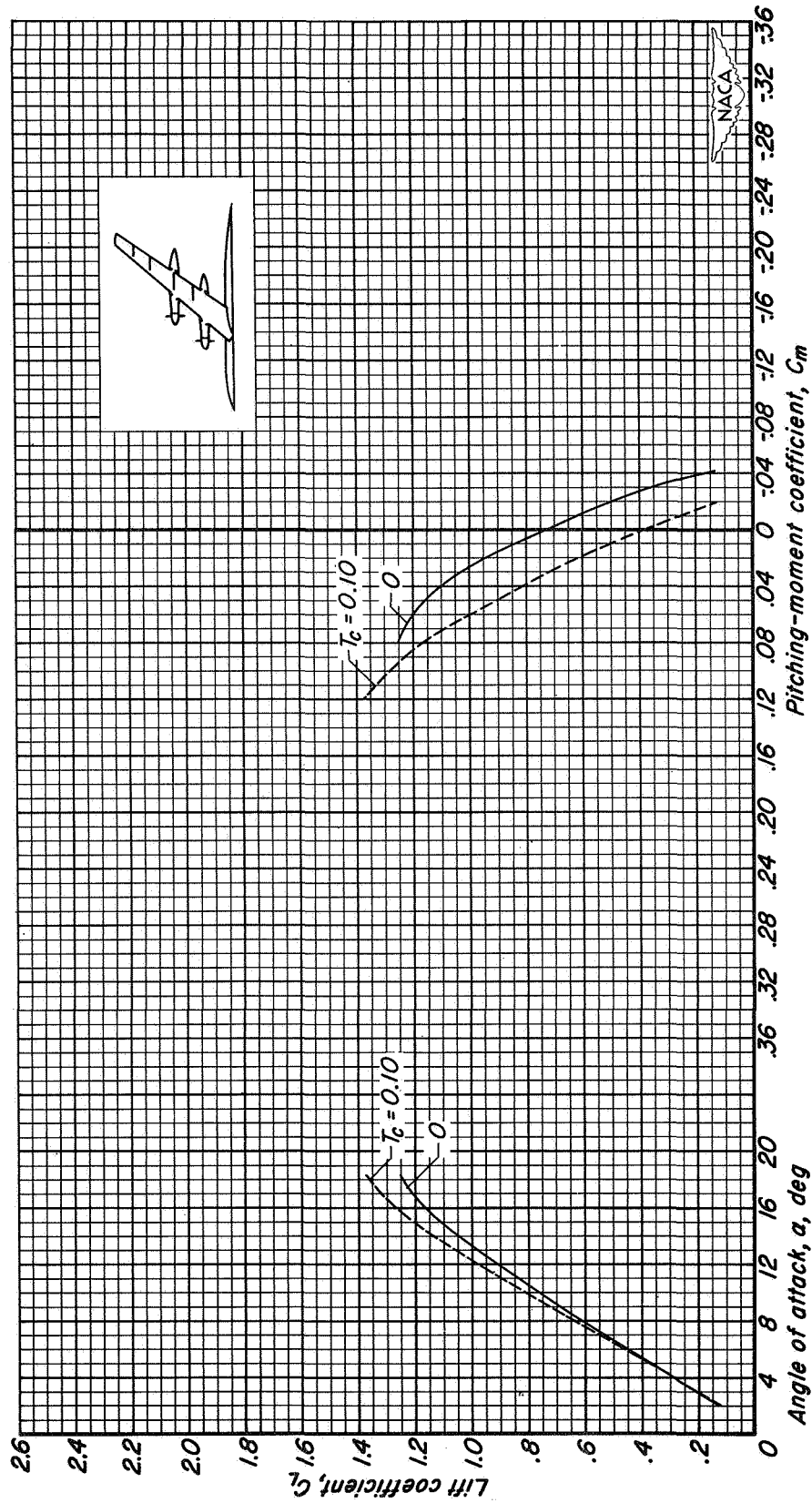
(a) C_L vs α and C_m

Figure 12.- The longitudinal characteristics of the model. Tail removed; flaps up; $M = 0.123$;
 $R = 6,000,000$; $\beta = 31^\circ$.



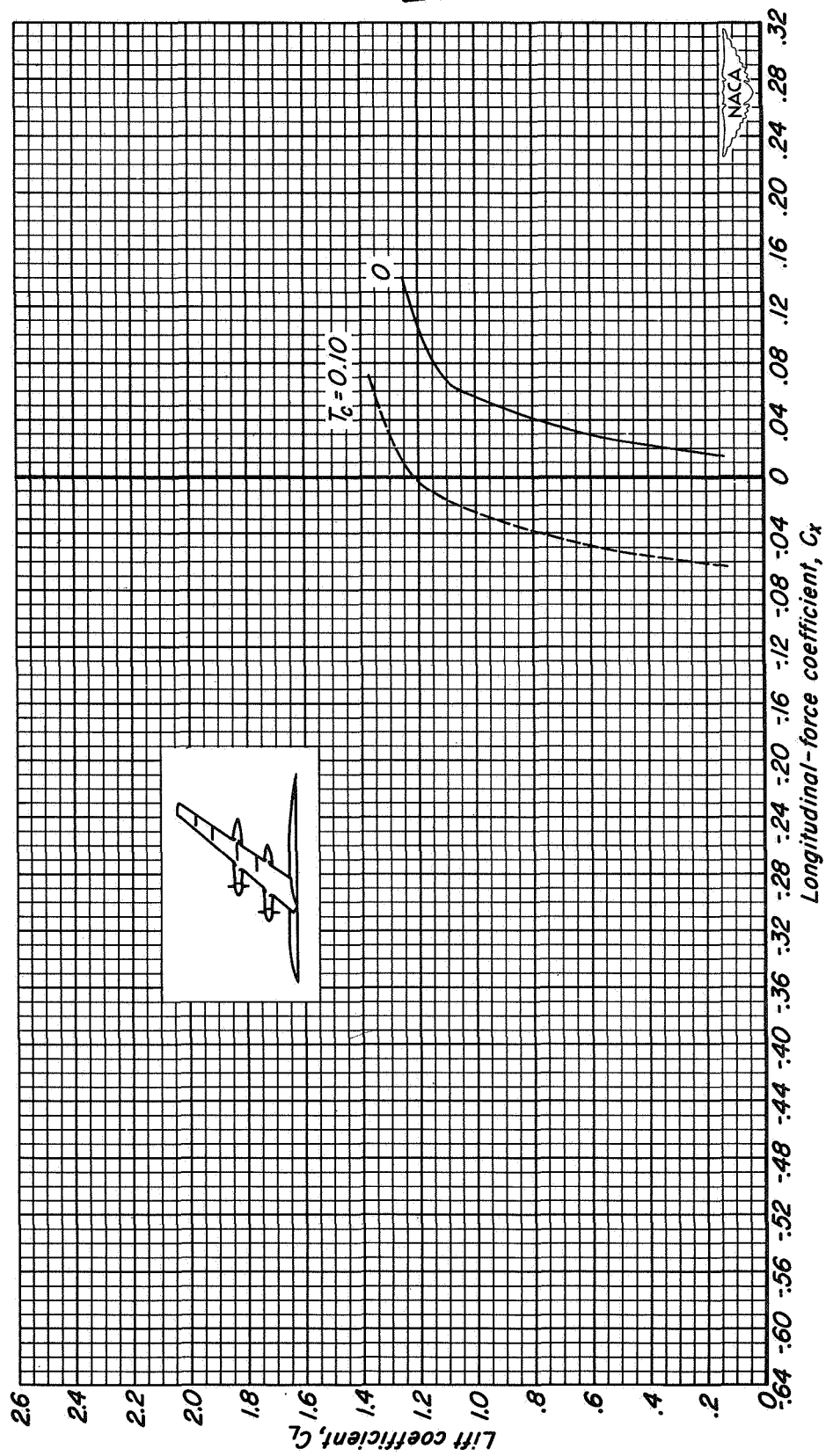
(b) C_L vs C_x

Figure 12.- Concluded.



(a) C_L vs α and C_m

Figure 13.- The longitudinal characteristics of the model. Tail removed; flaps up; $M = 0.165$;
 $R = 8,000,000$; $\beta = 31^\circ$.



(b) C_L vs C_x

Figure 13.- Concluded.

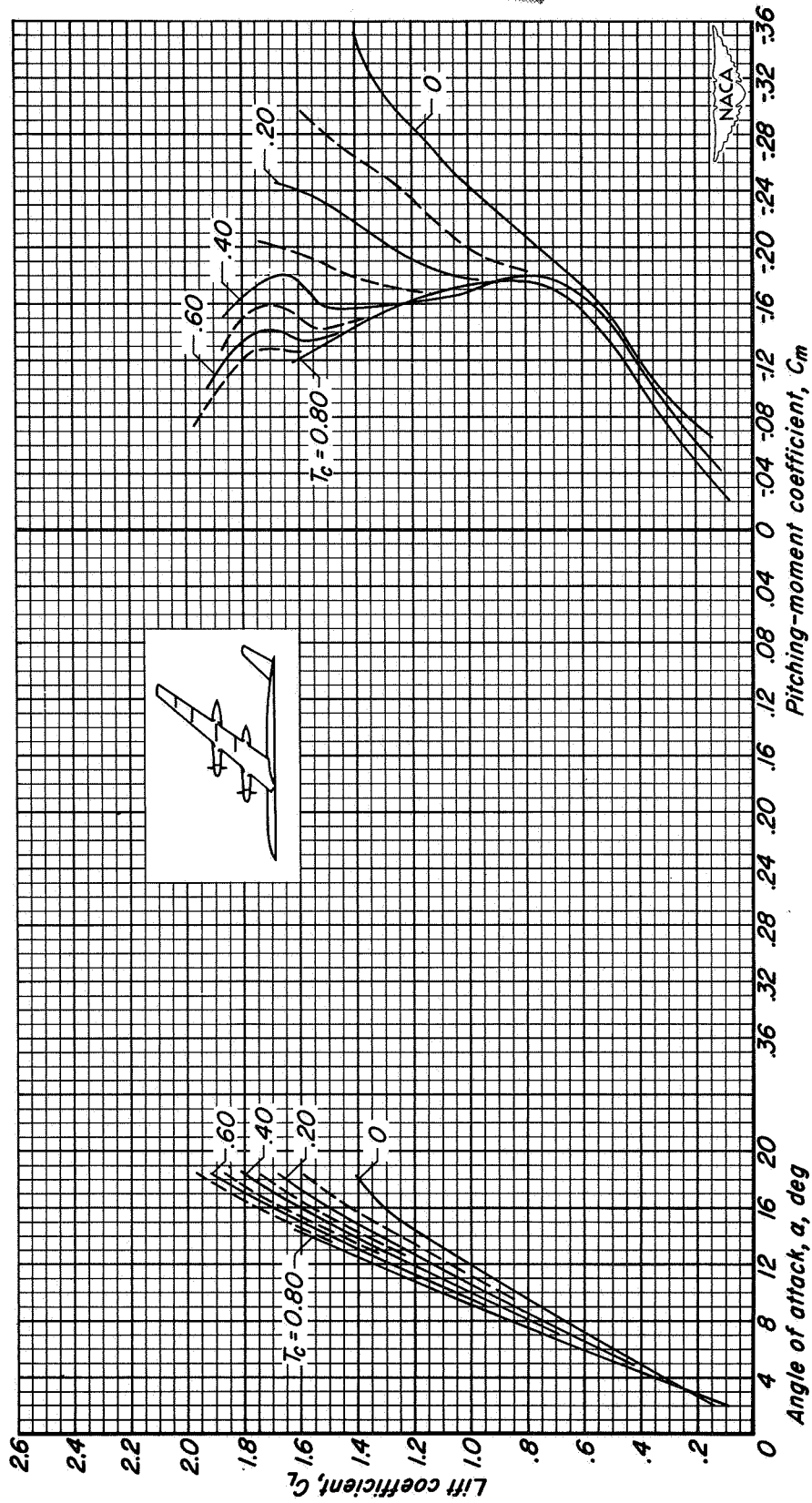
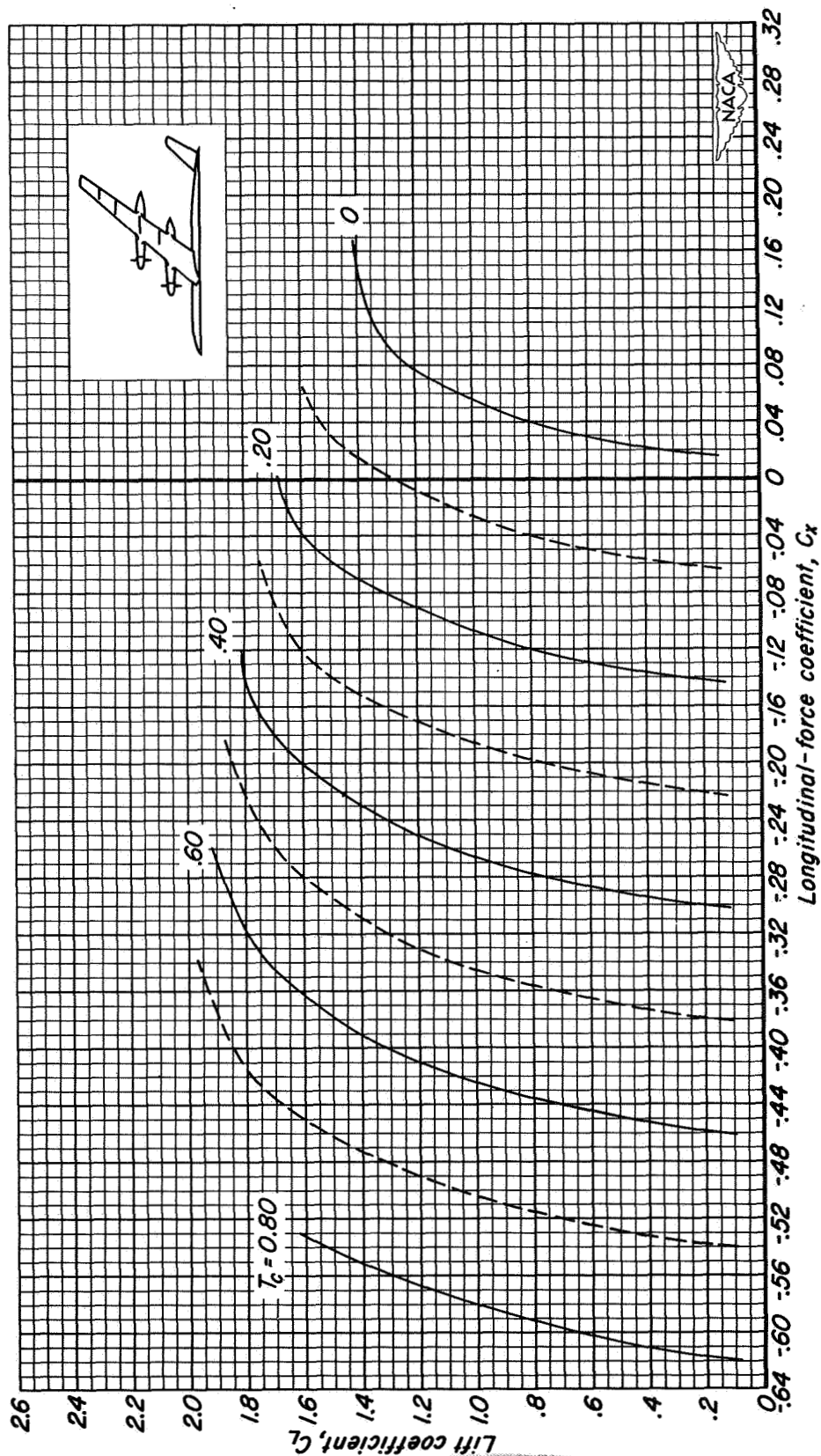
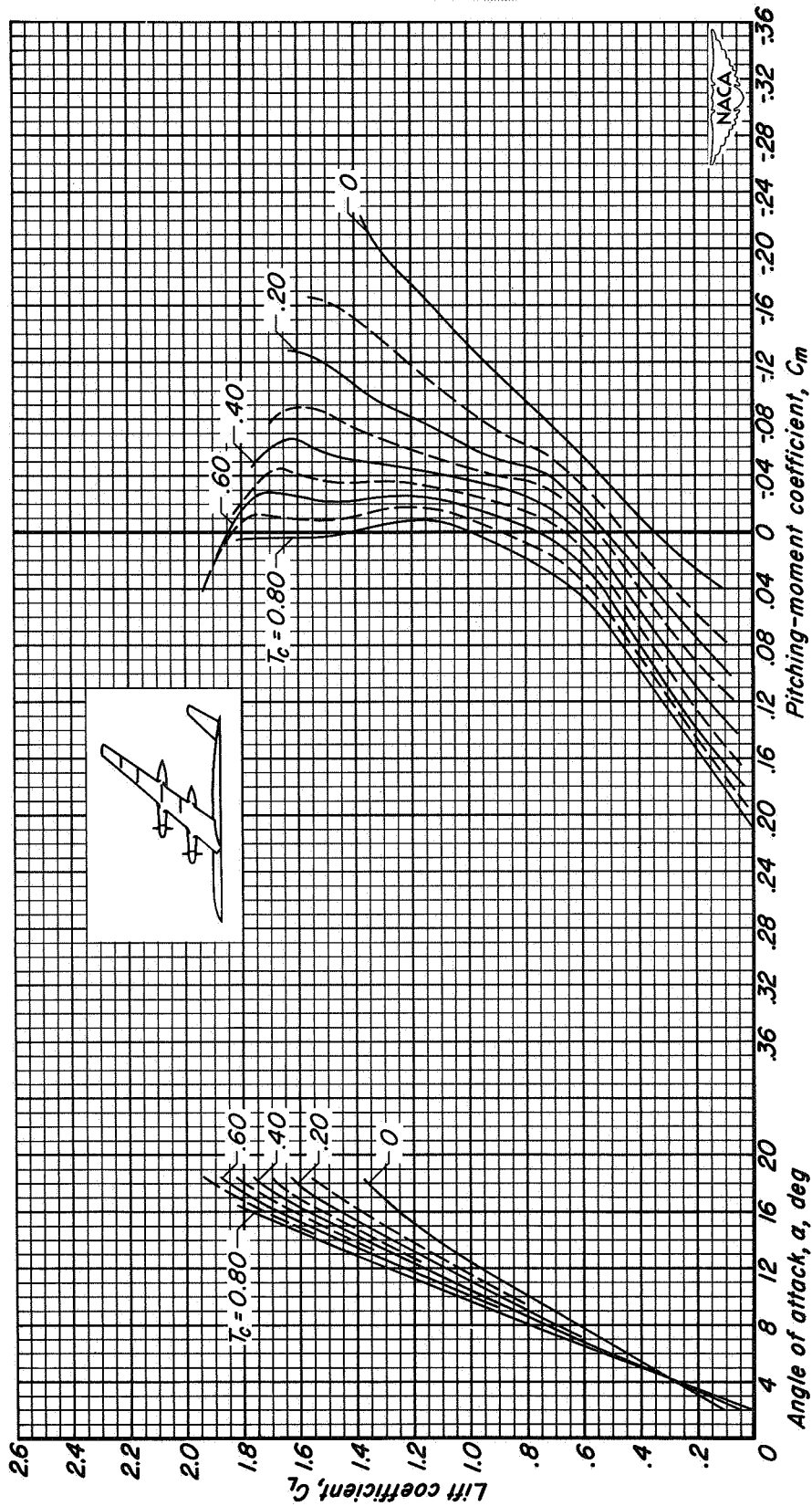
(a) C_L vs α and C_m

Figure 14.- The longitudinal characteristics of the model. Tail height = 0; flaps up; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$.



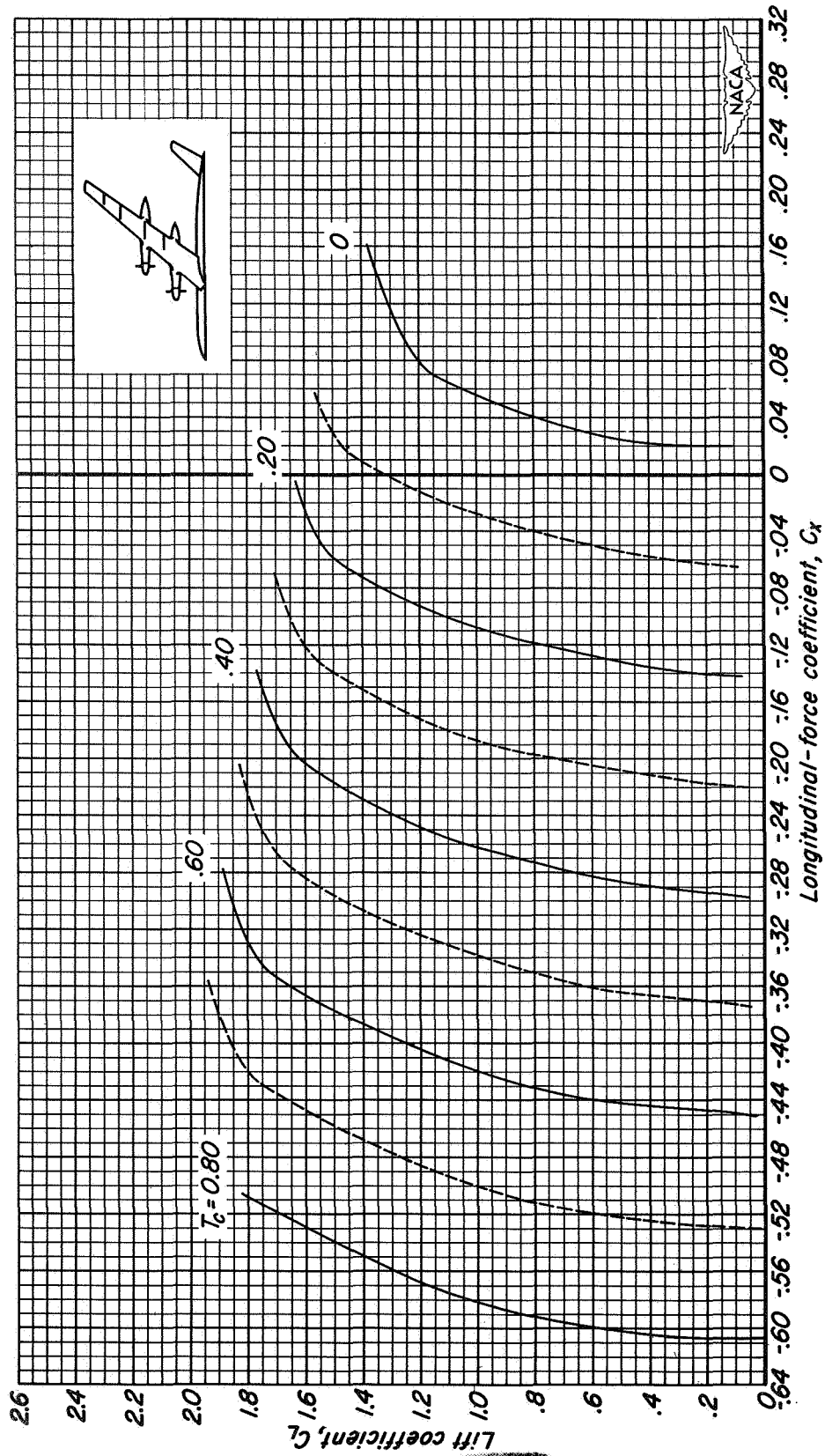
(b) C_L vs C_X

Figure 14.- Concluded.



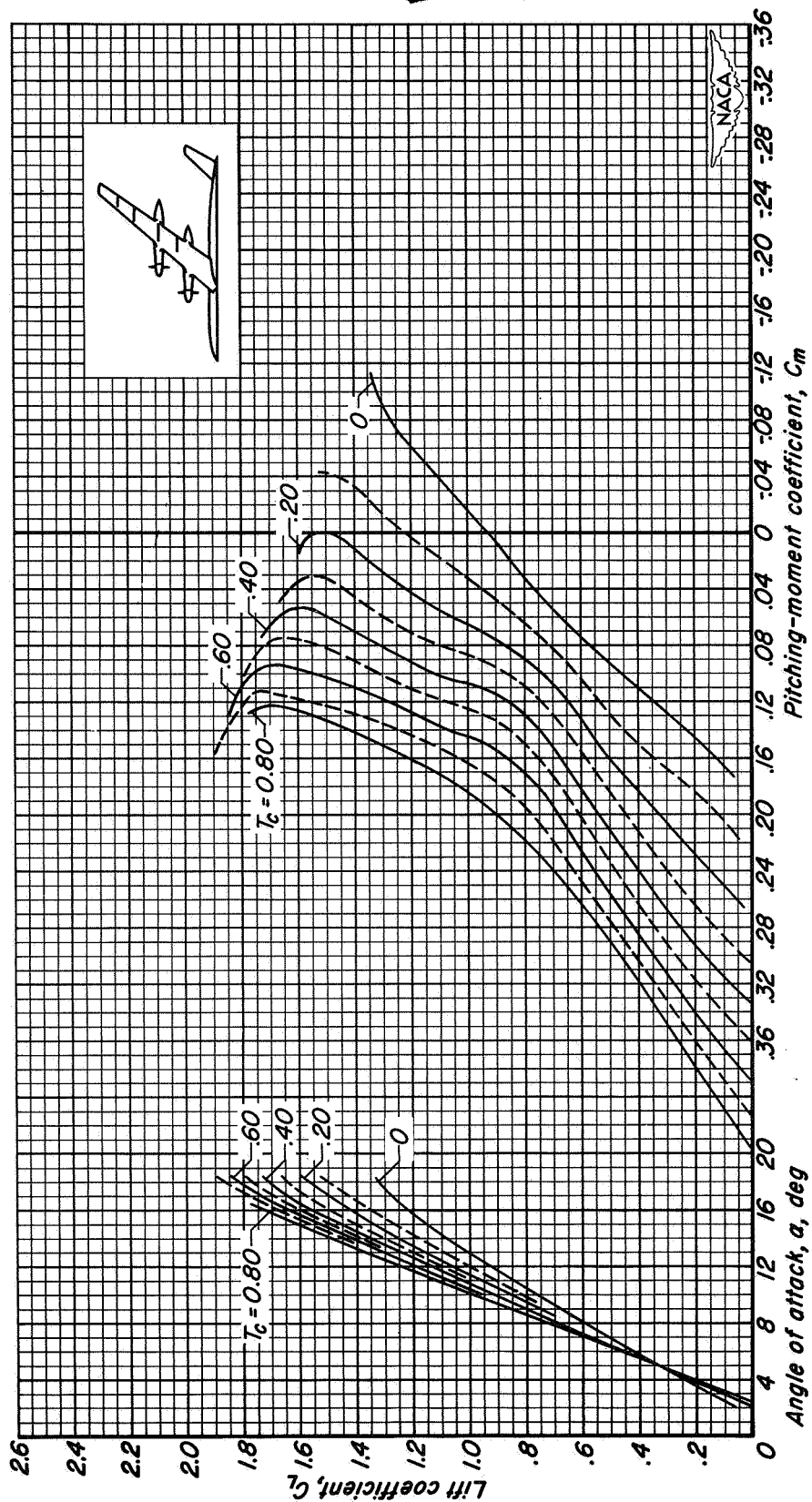
(a) C_L vs α and C_m

Figure 15.- The longitudinal characteristics of the model. Tail height = 0; flaps up; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$.



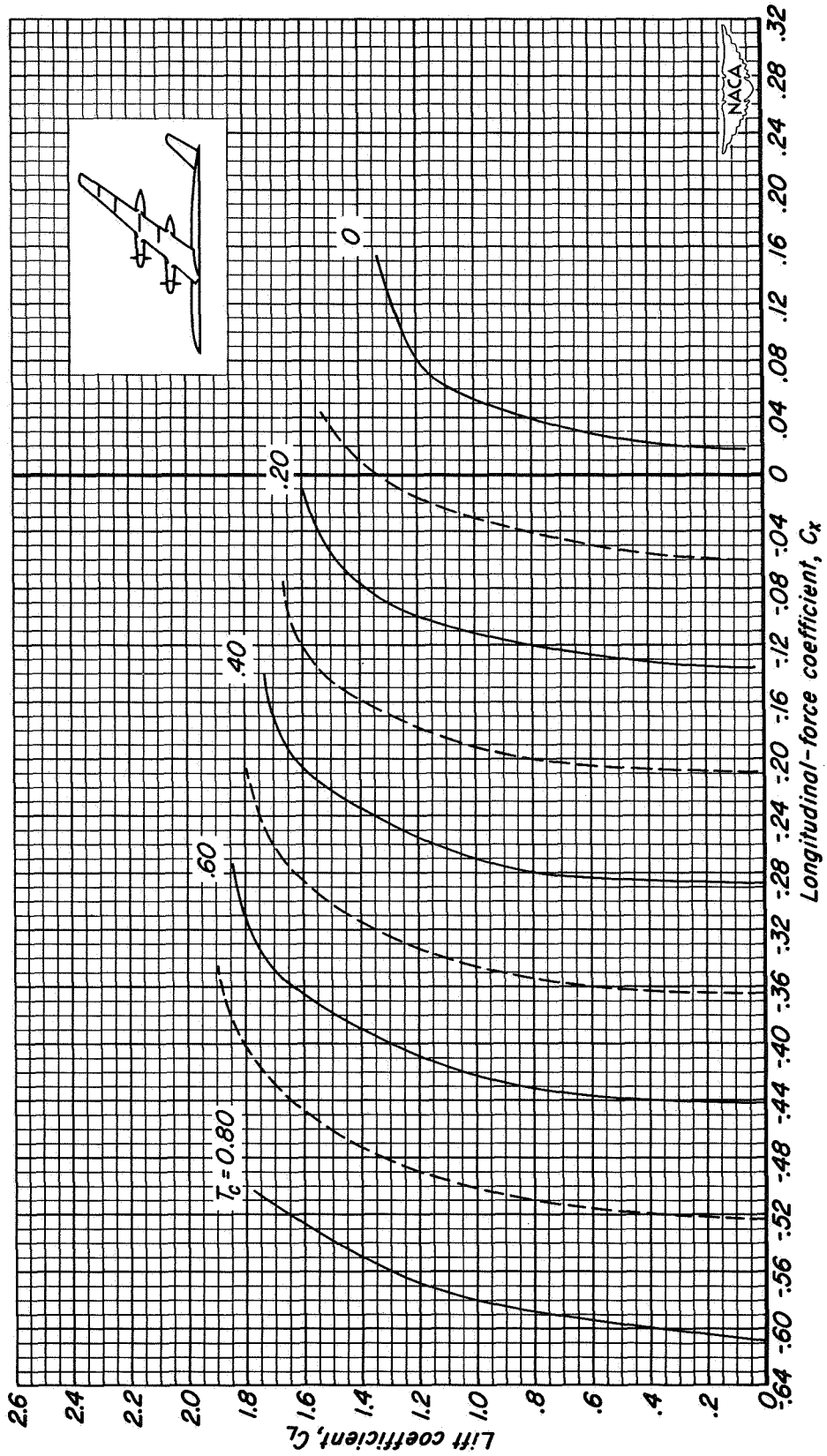
(b) C_L vs C_x

Figure 15.- Concluded.



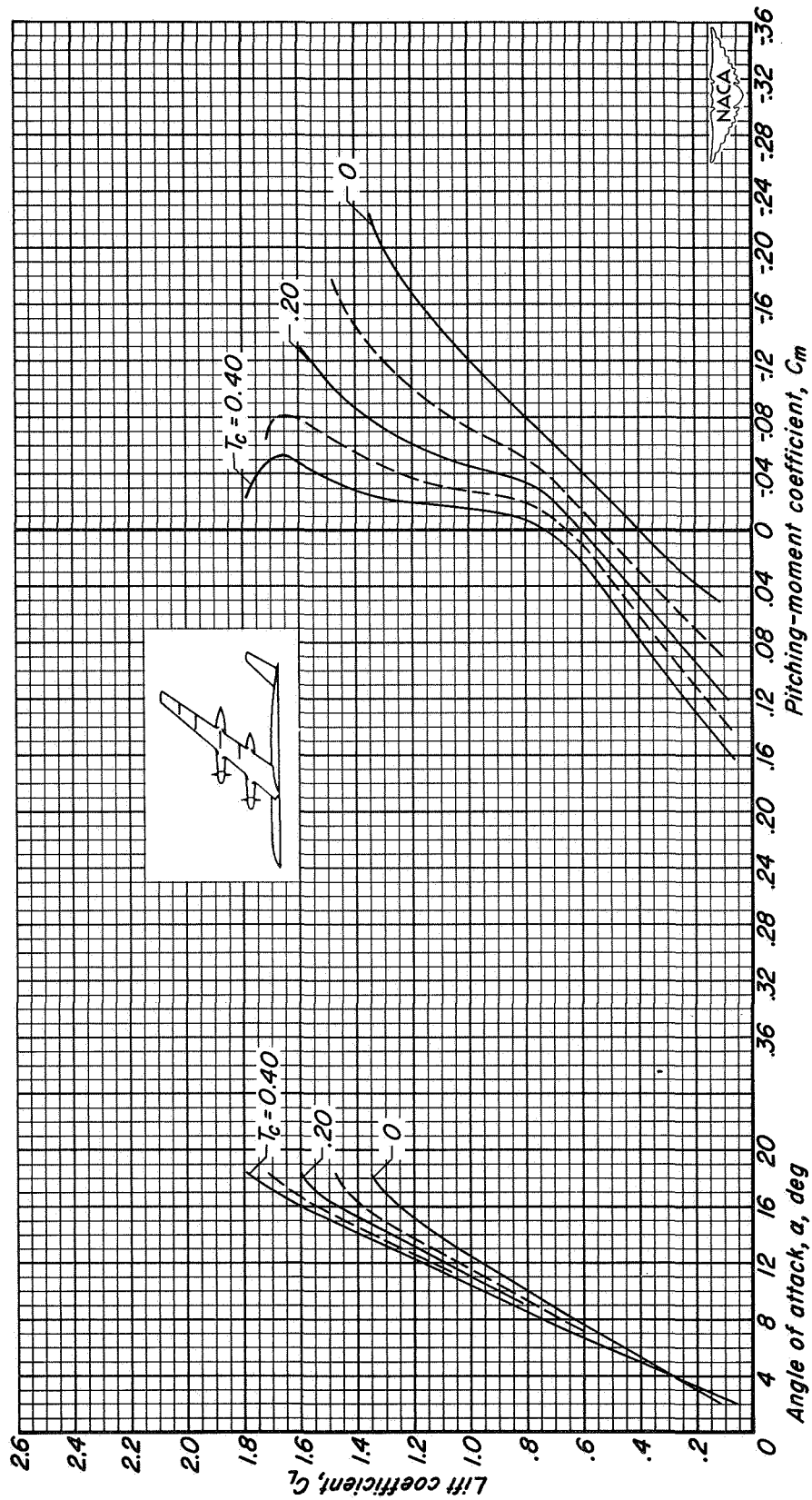
(a) C_L vs α and C_m

Figure 16.- The longitudinal characteristics of the model. Tail height = 0; flaps up; $M = 0.082$;
 $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -8^\circ$.



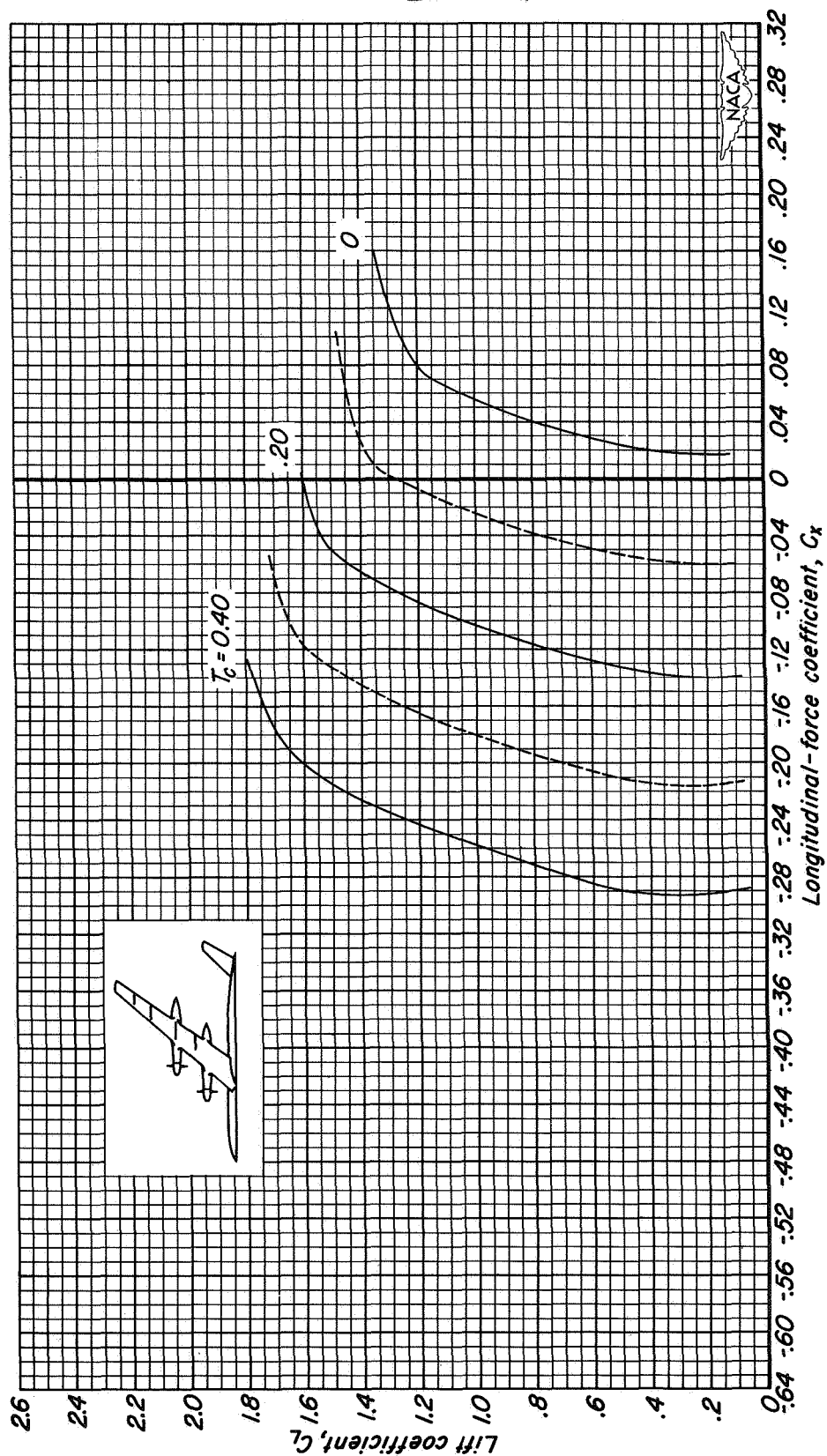
(b) C_L vs C_X

Figure 16.- Concluded.



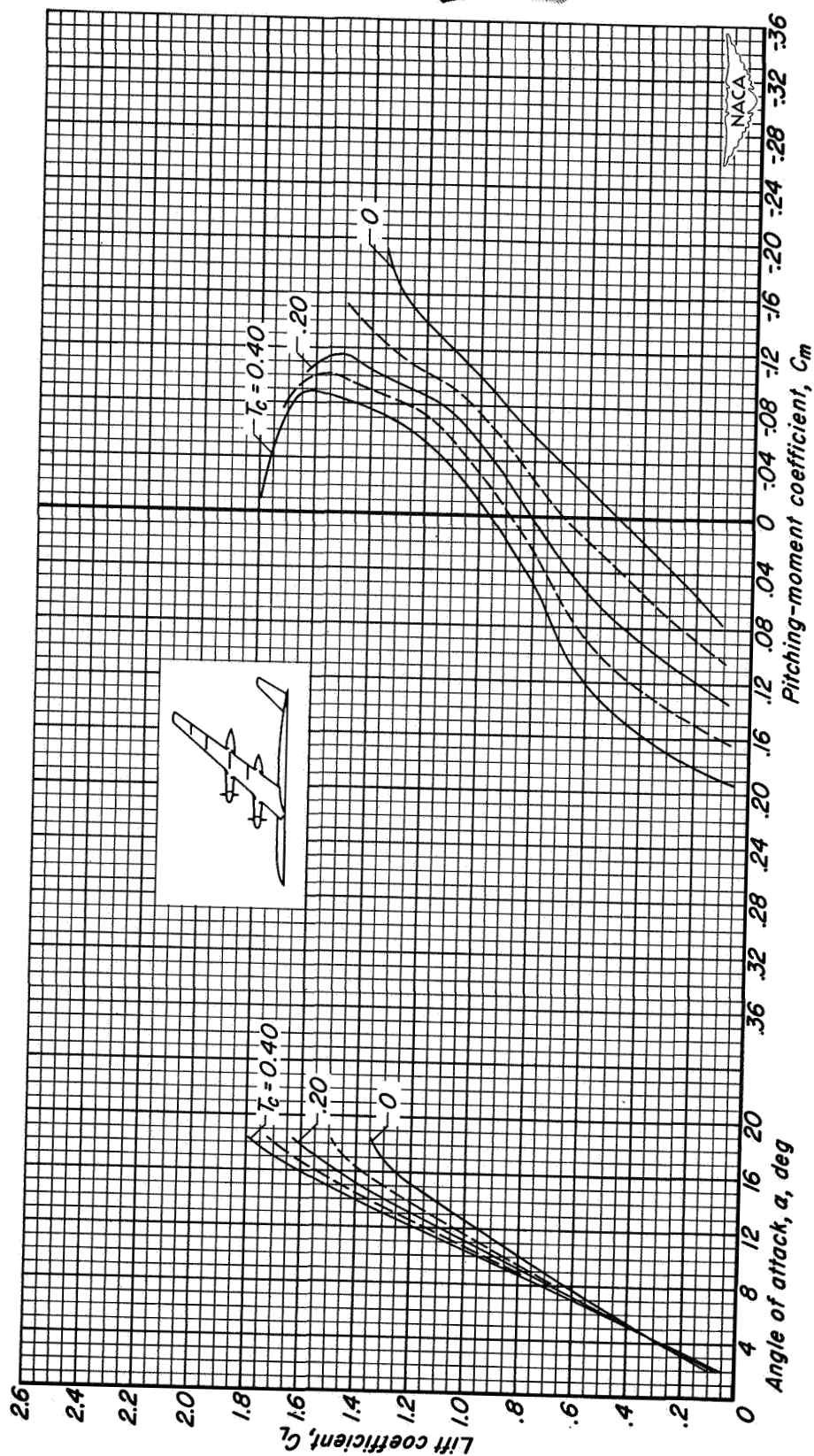
(a) C_L vs α and C_m

Figure 17.- The longitudinal characteristics of the model. Tail height = 0; flaps up; $M = 0.123$;
 $R = 4,000,000$; $\beta = 31^\circ$; $i_t = -4^\circ$.



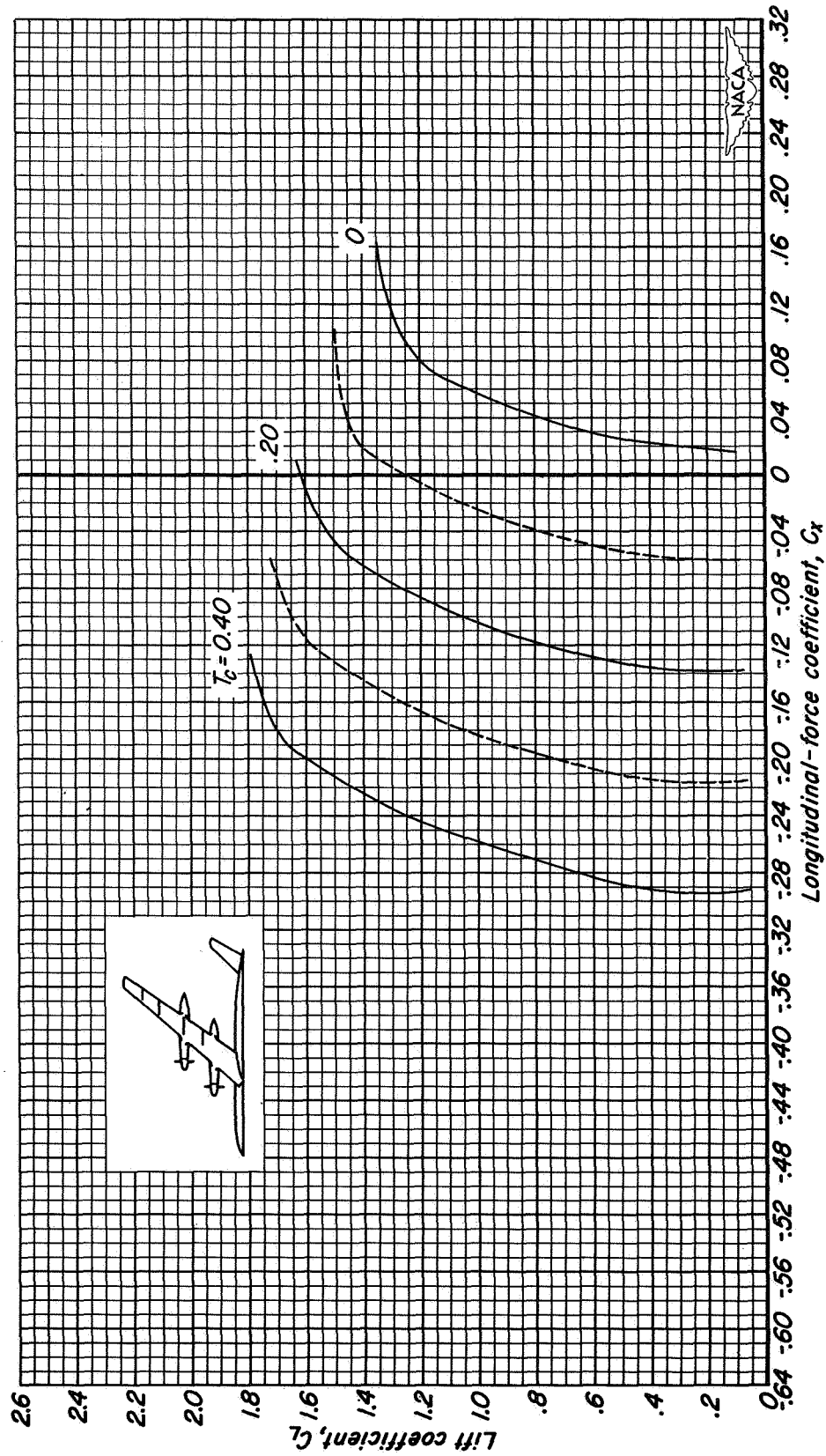
(b) C_L vs C_x

Figure 17.- Concluded.



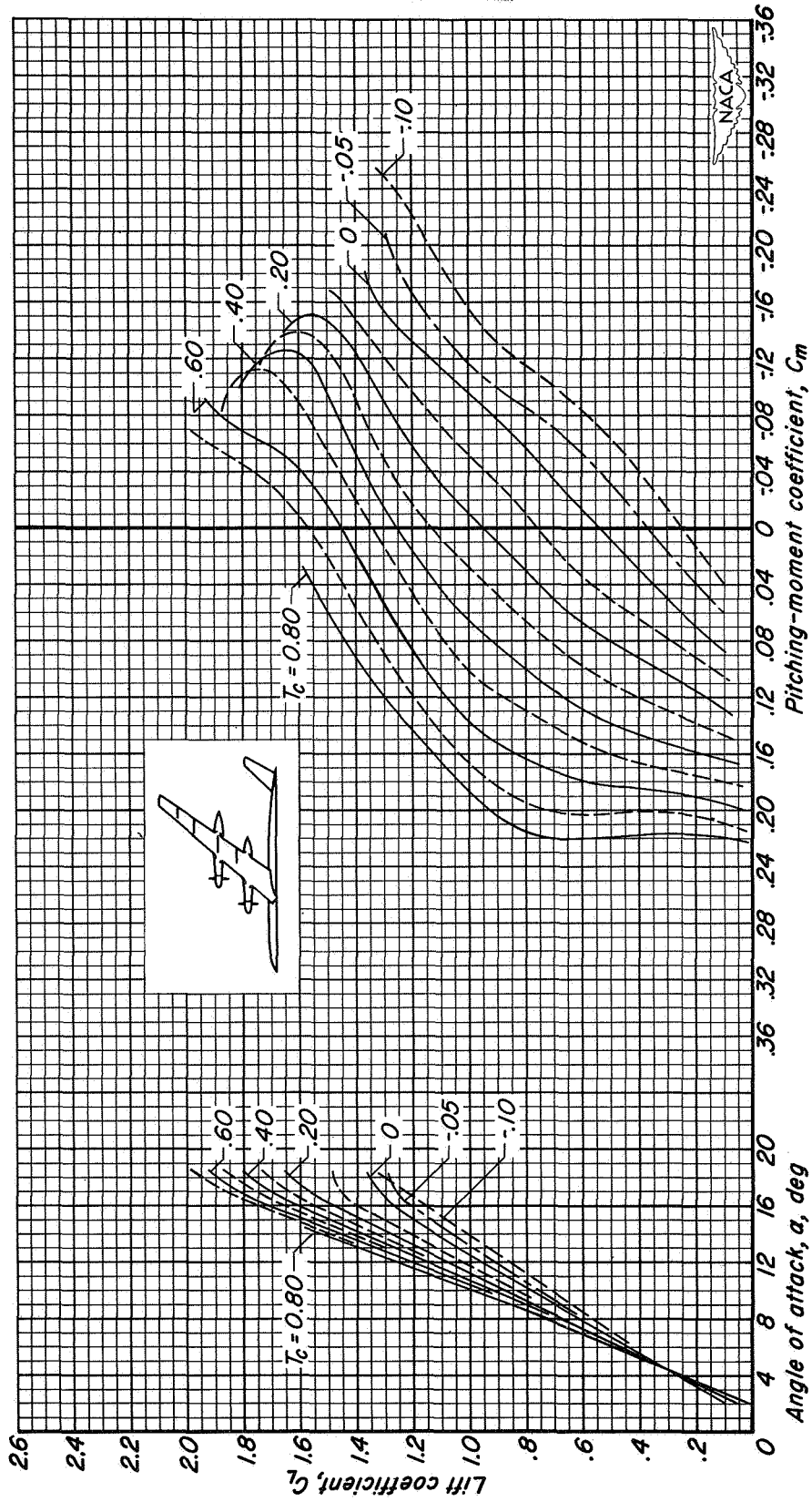
(a) C_L vs α and C_m

Figure 18.- The longitudinal characteristics of the model. Tail height = $0.05 b/2$; flaps up;
 $M = 0.123$; $R = 4,000,000$; $\beta = 31^\circ$; $i_t = 0$.



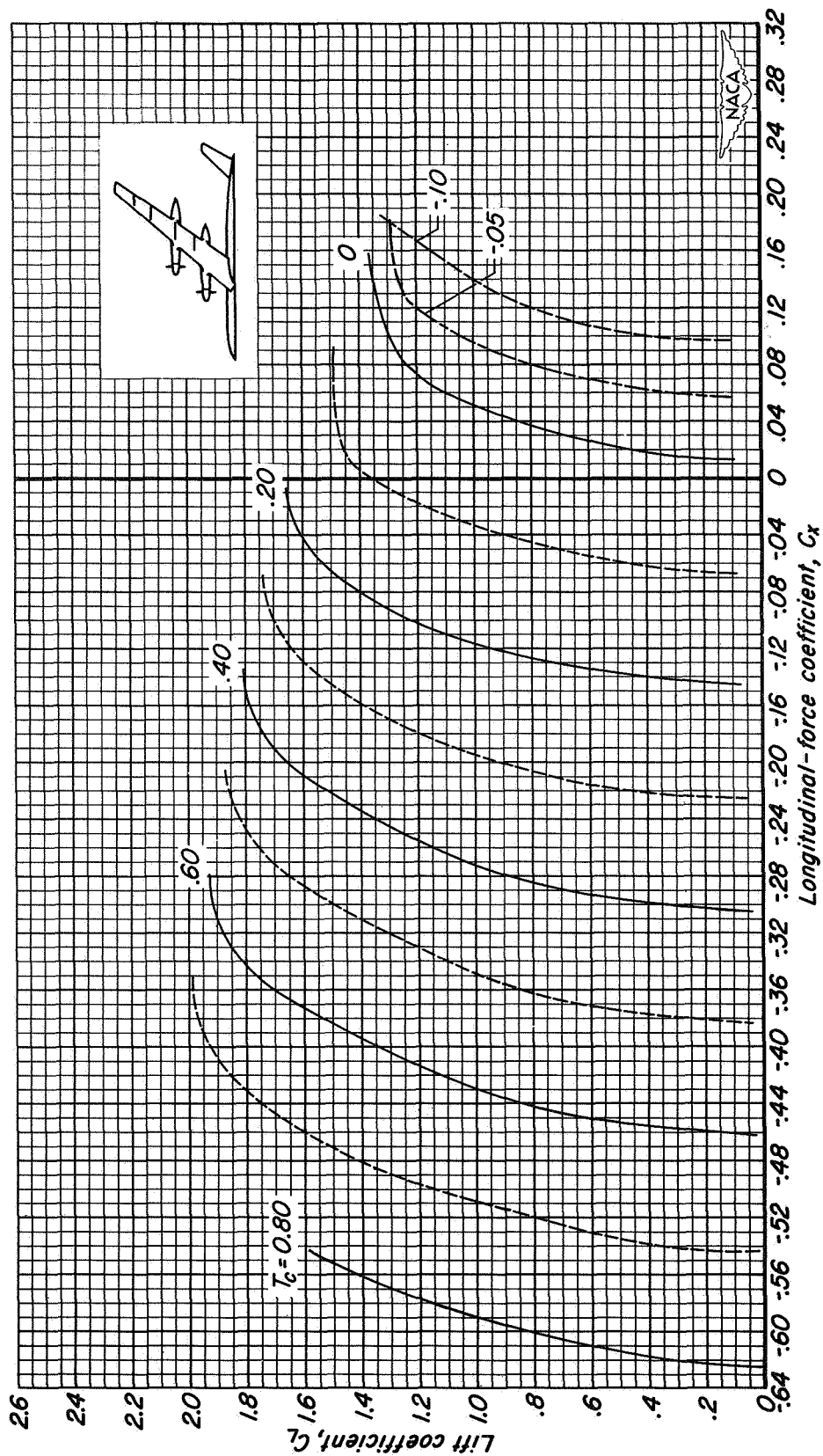
(b) C_L vs C_x

Figure 18.- Concluded.



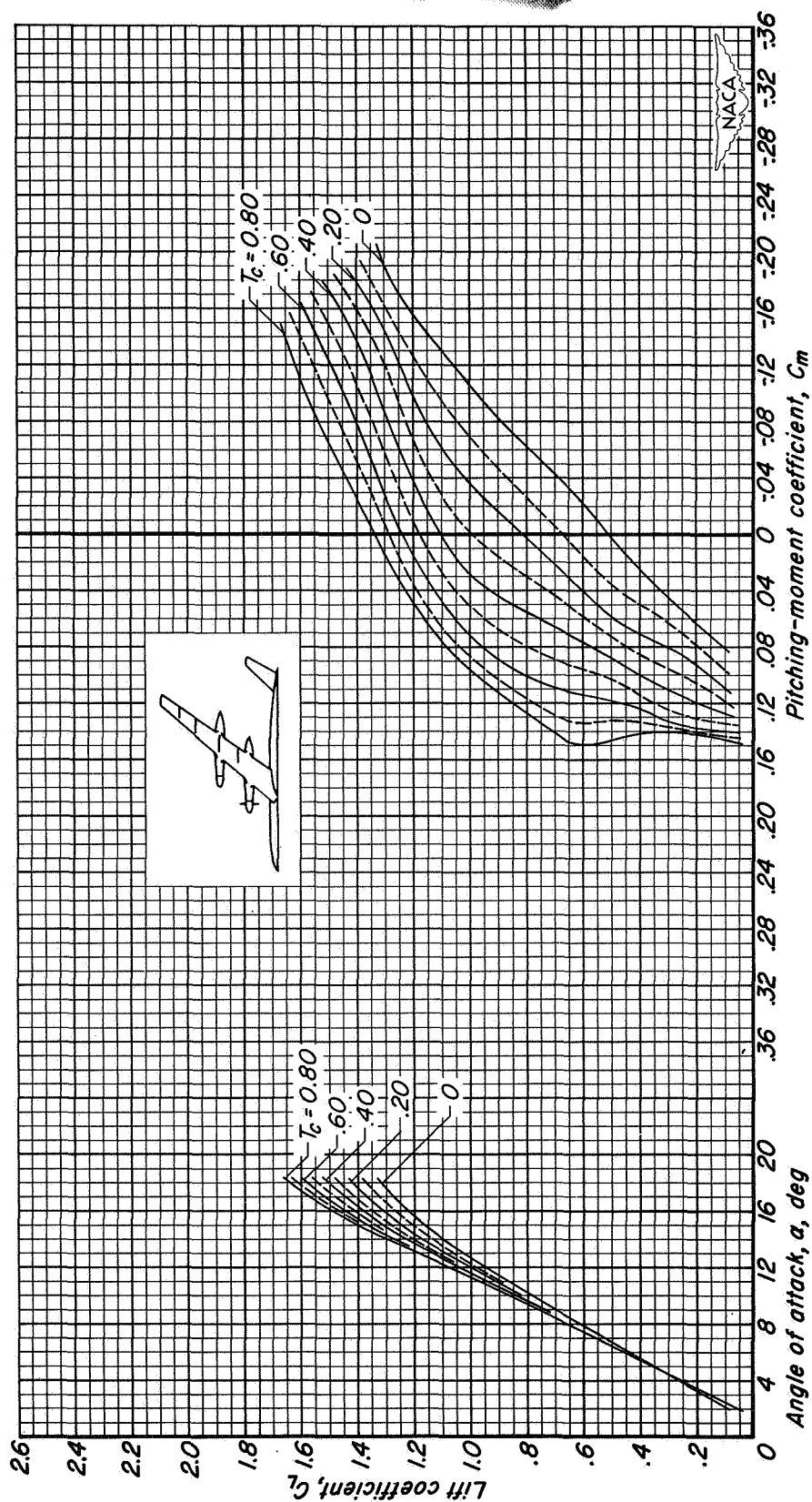
(a) C_L vs α and C_m

Figure 19.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; flaps up;
 $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$.



(b) C_L vs C_x

Figure 19.- Concluded.



(a) C_L vs α and C_m

Figure 20.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; flaps up; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$; inboard propeller only.

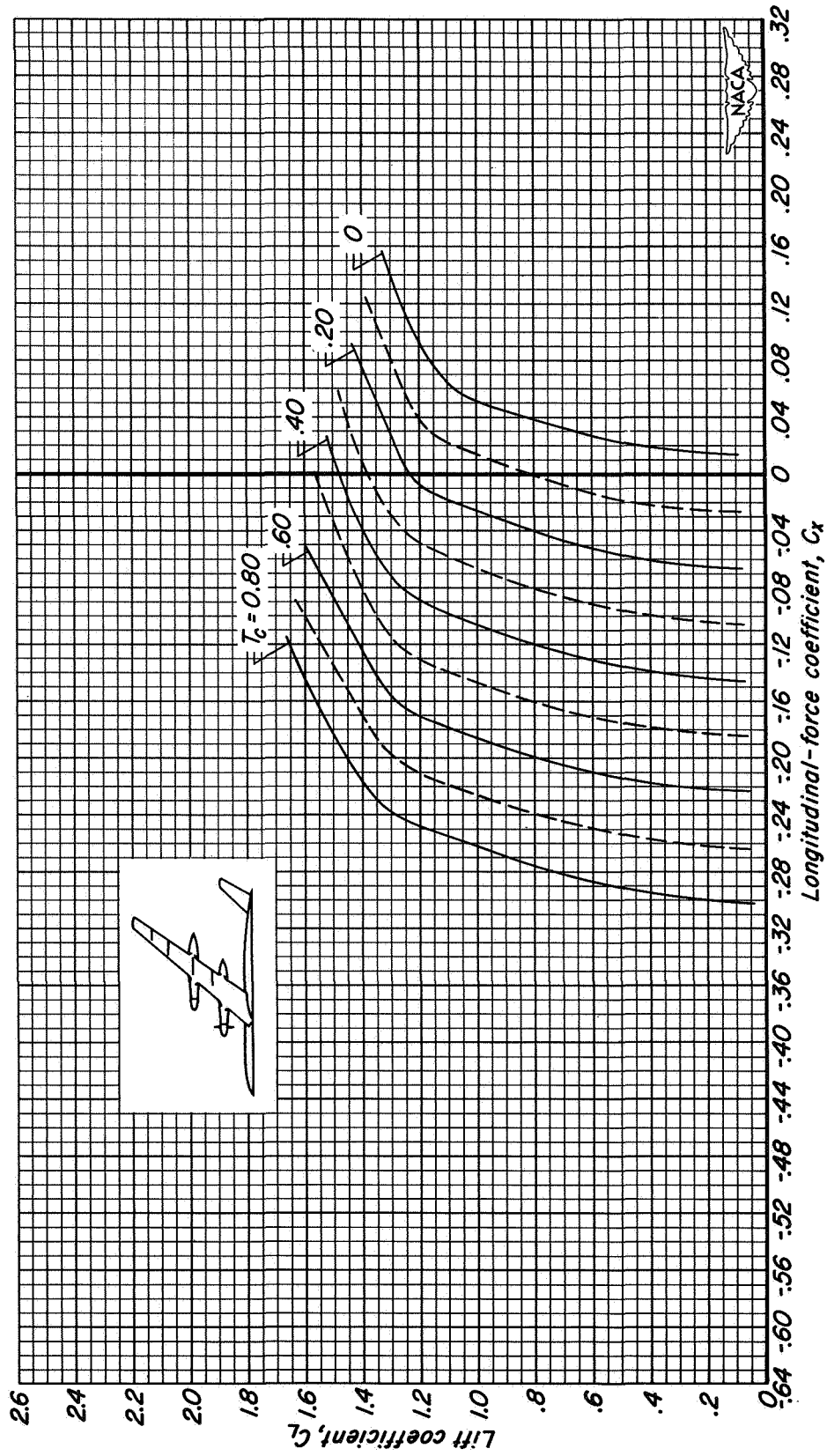
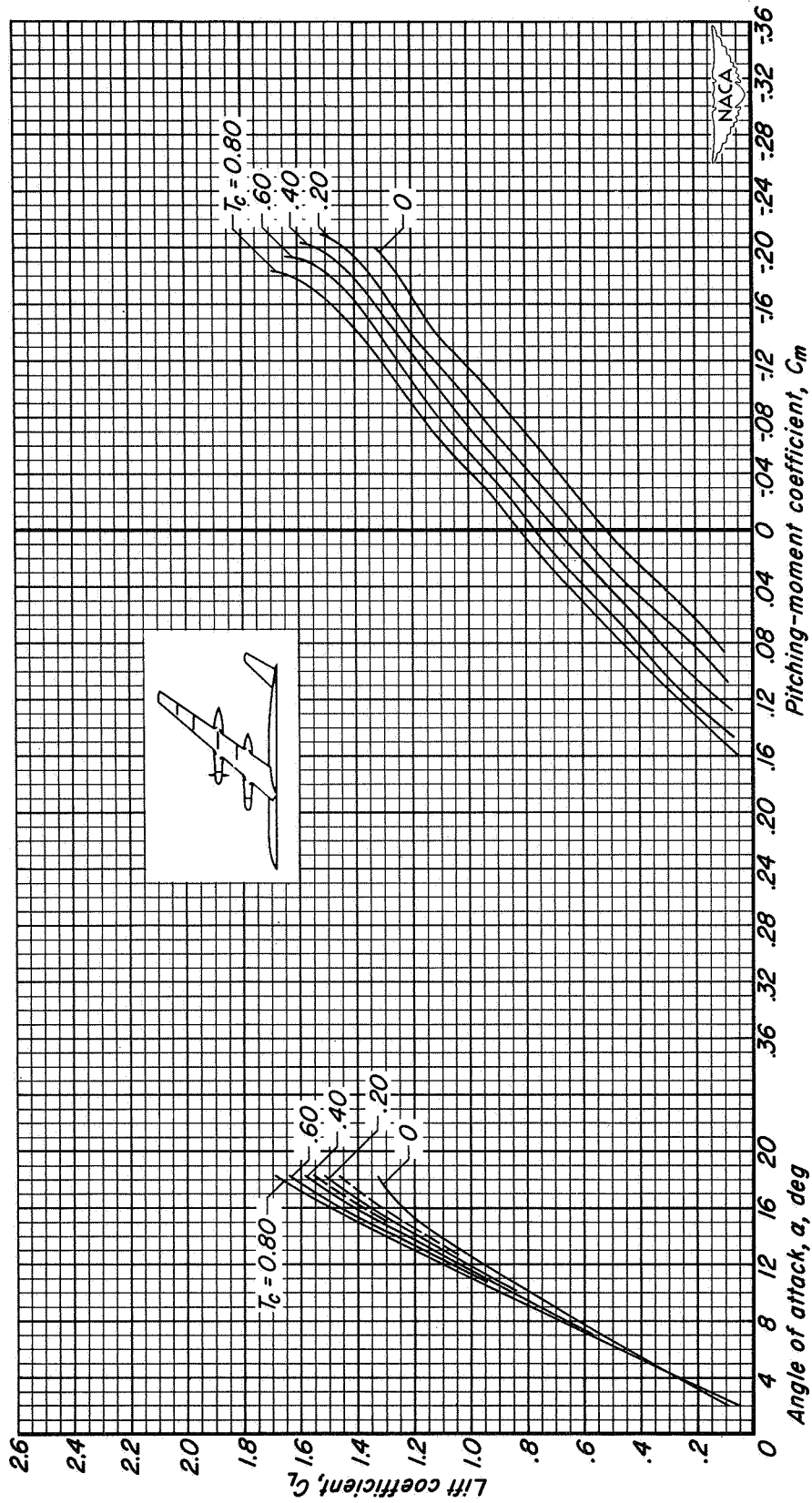
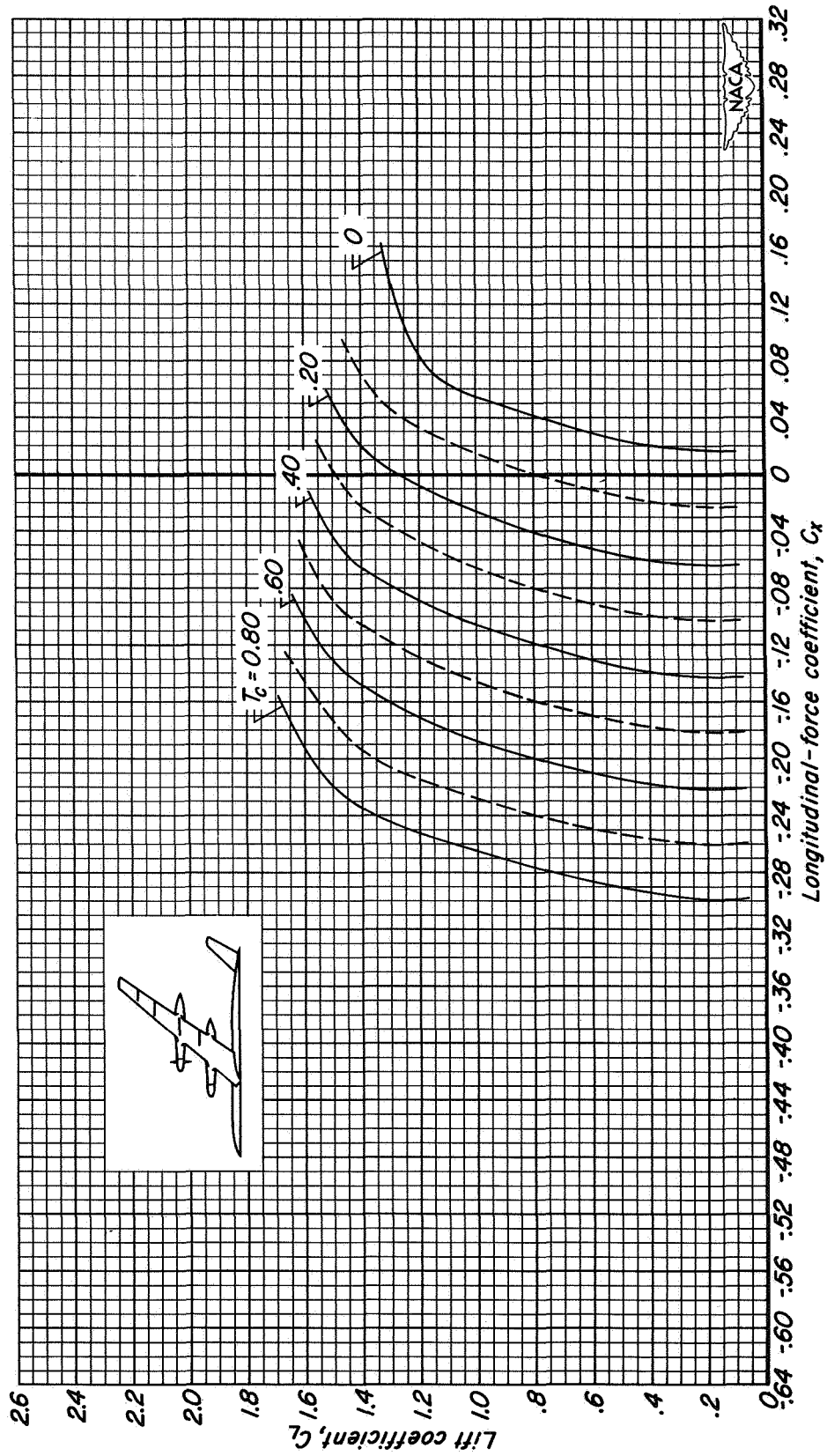
(b) C_L vs C_x

Figure 20.- Concluded.



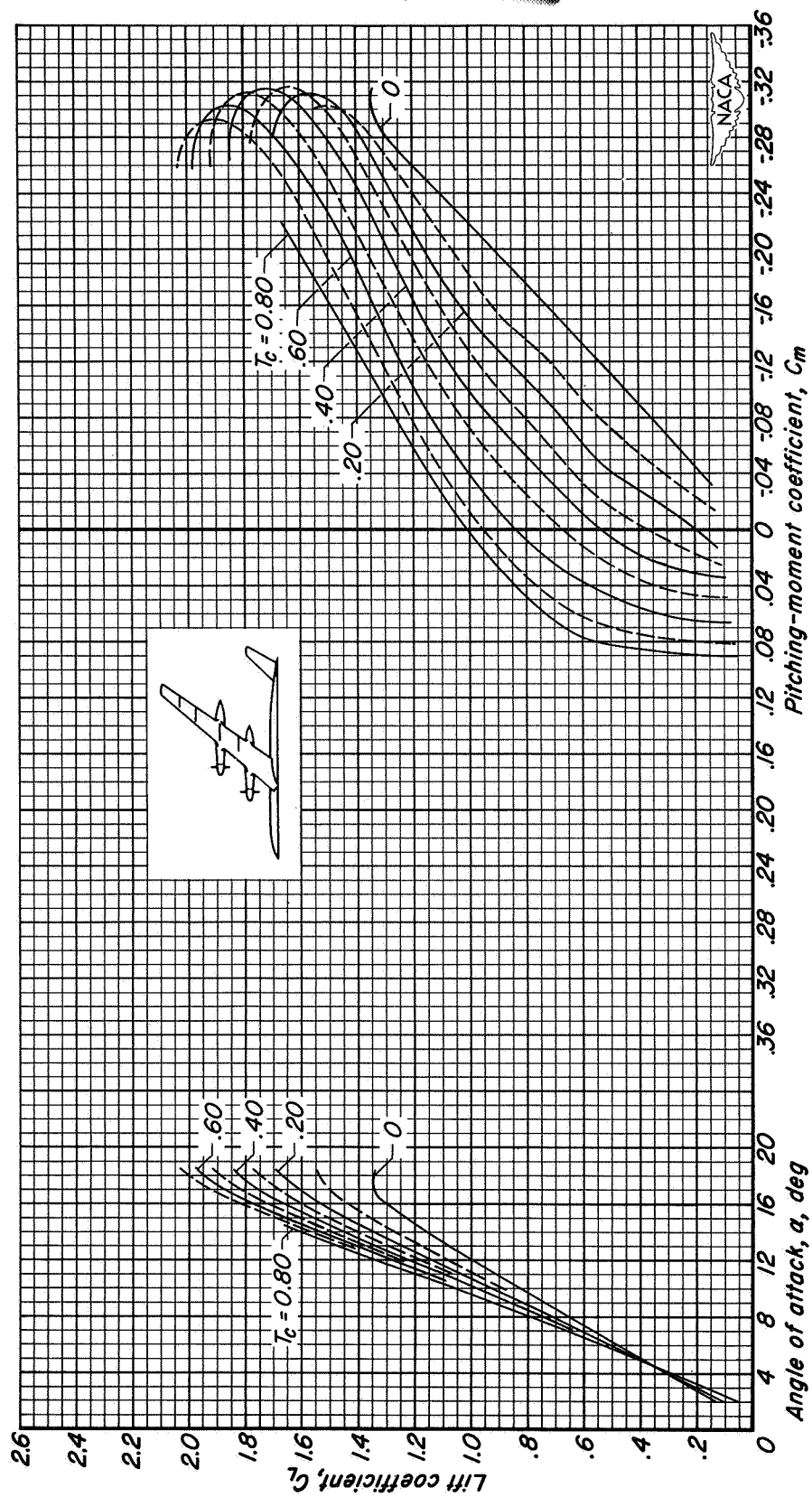
(a) C_L vs α and C_m

Figure 21.- The longitudinal characteristics of the model. Tail height = 0.10 b/2; flaps up; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$; outboard propeller only.



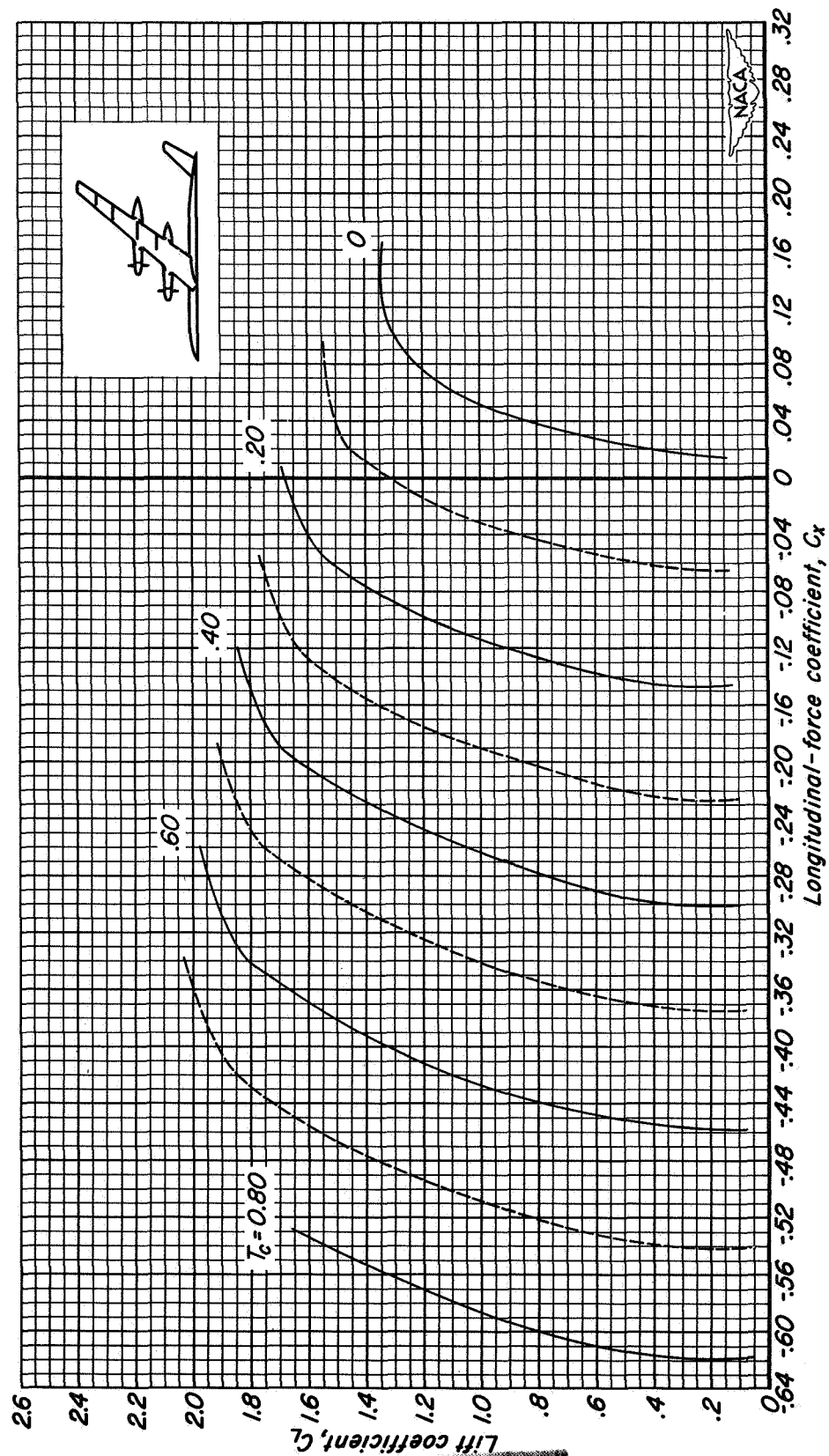
(b) C_L vs C_x

Figure 21.- Concluded.



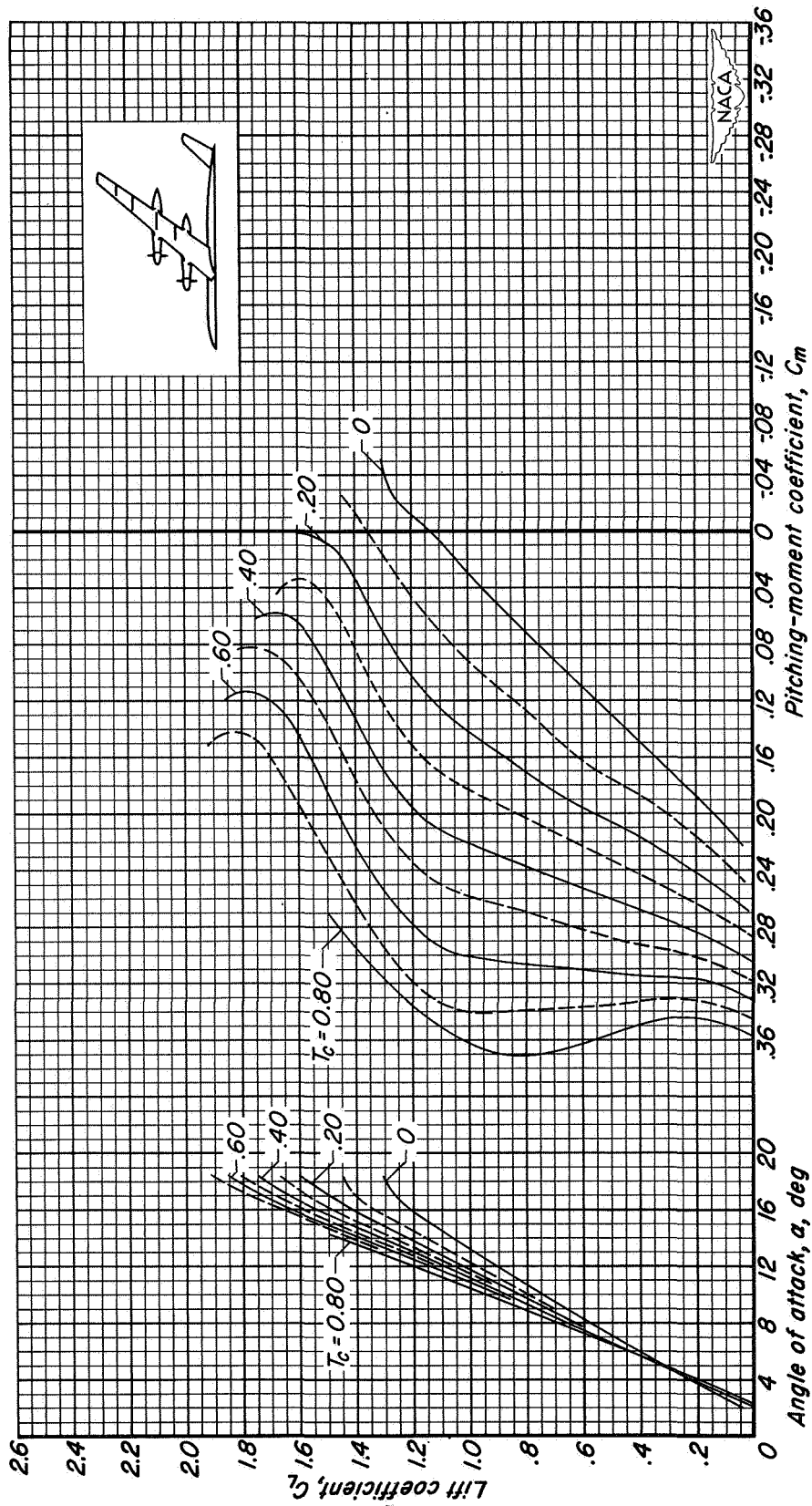
(a) C_L vs α and C_m

Figure 22.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; flaps up;
 $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $it = 0^\circ$.



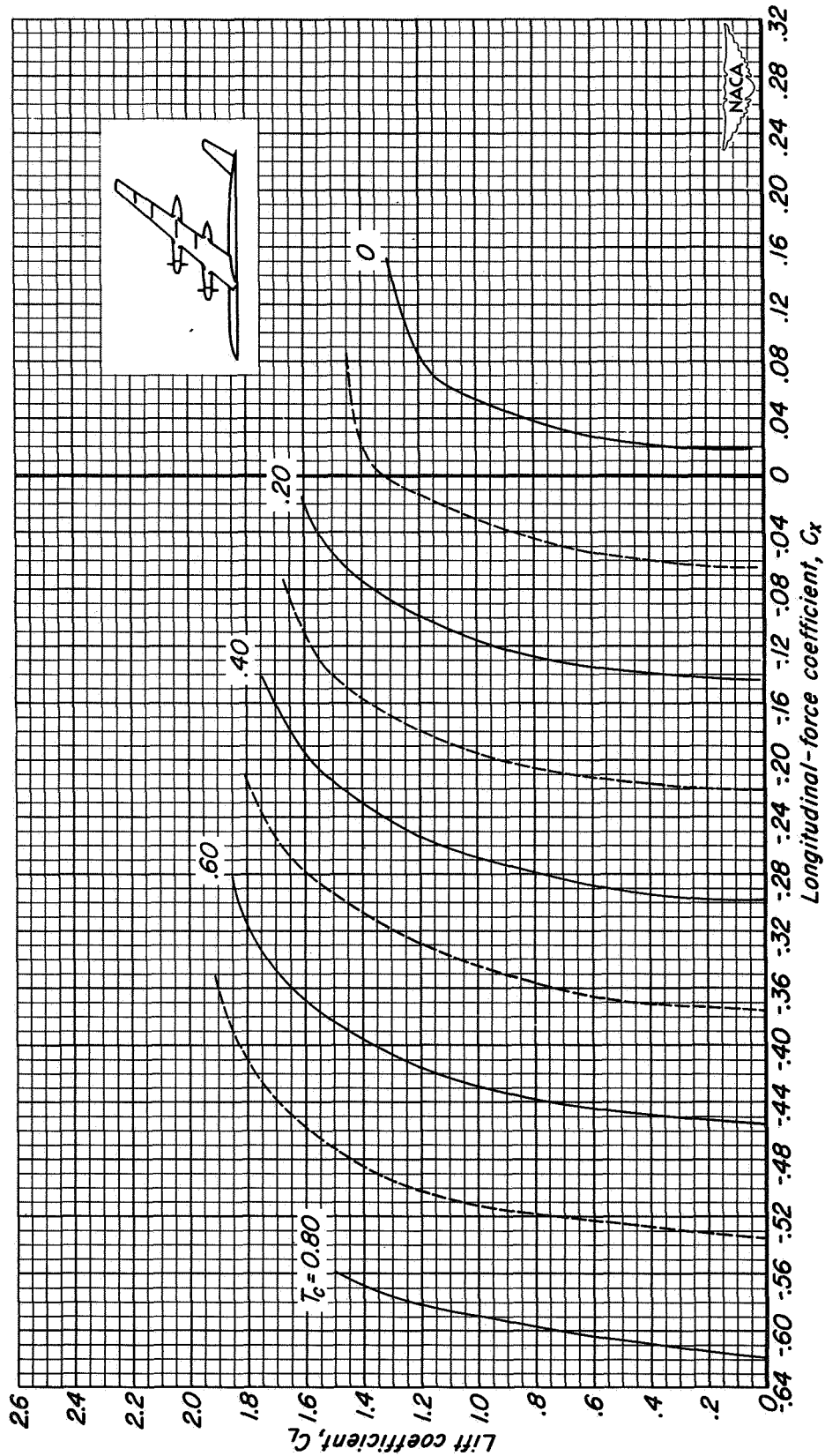
(b) C_L vs C_x

Figure 22.- Concluded.



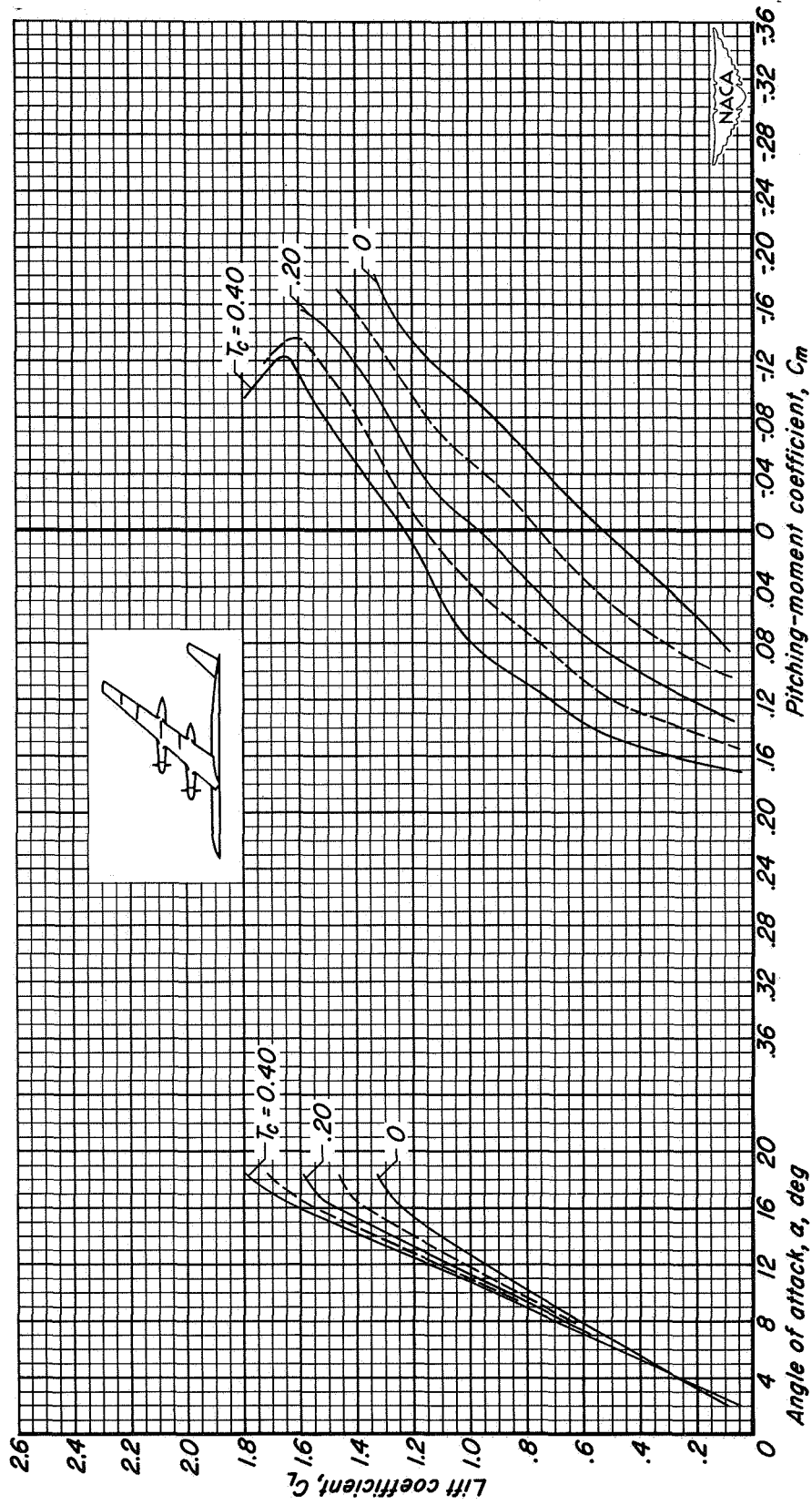
(a) C_L vs α and C_m

Figure 23.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; flaps up;
 $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -8^\circ$.



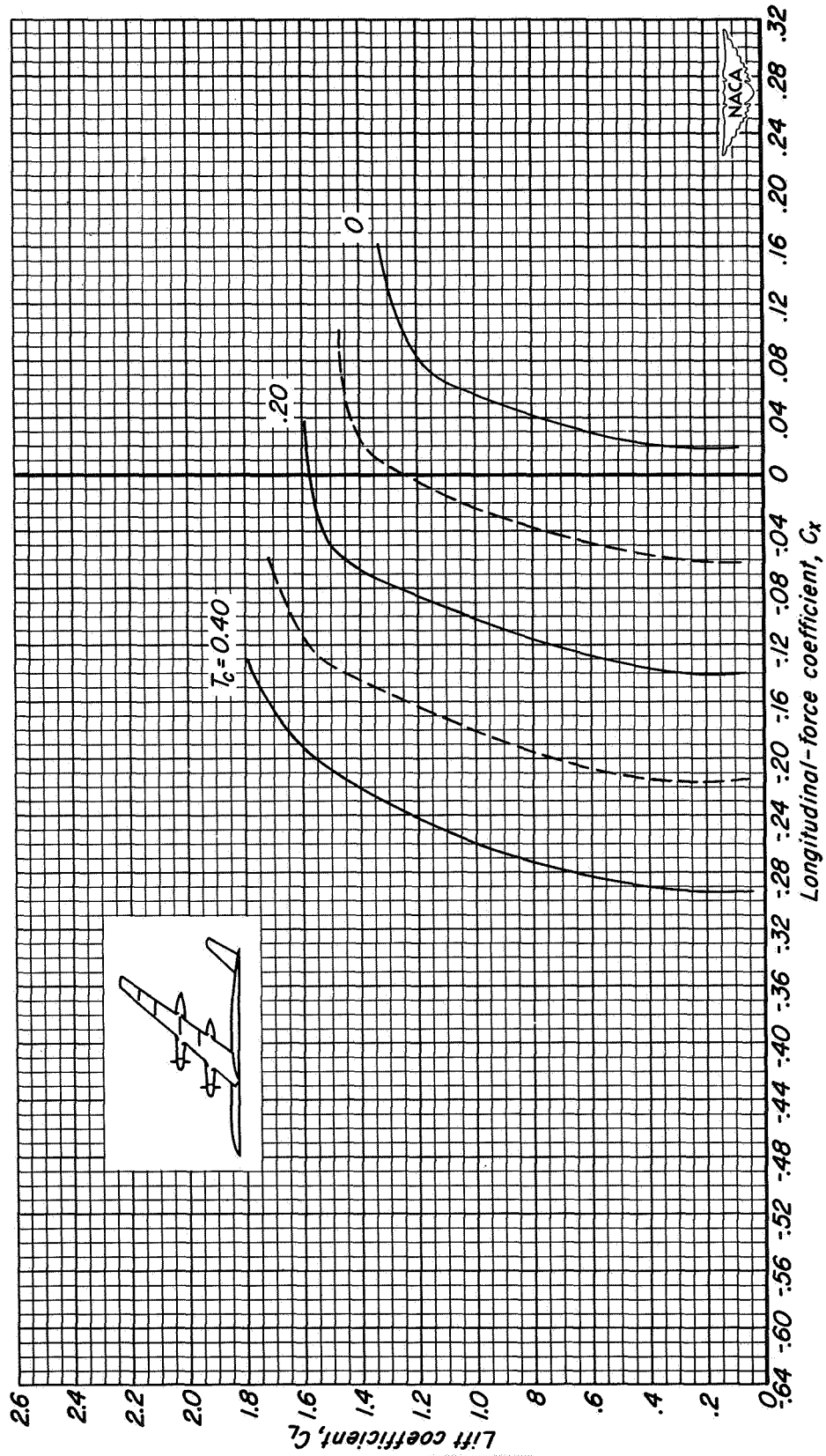
(b) C_L vs C_X

Figure 23.- Concluded.



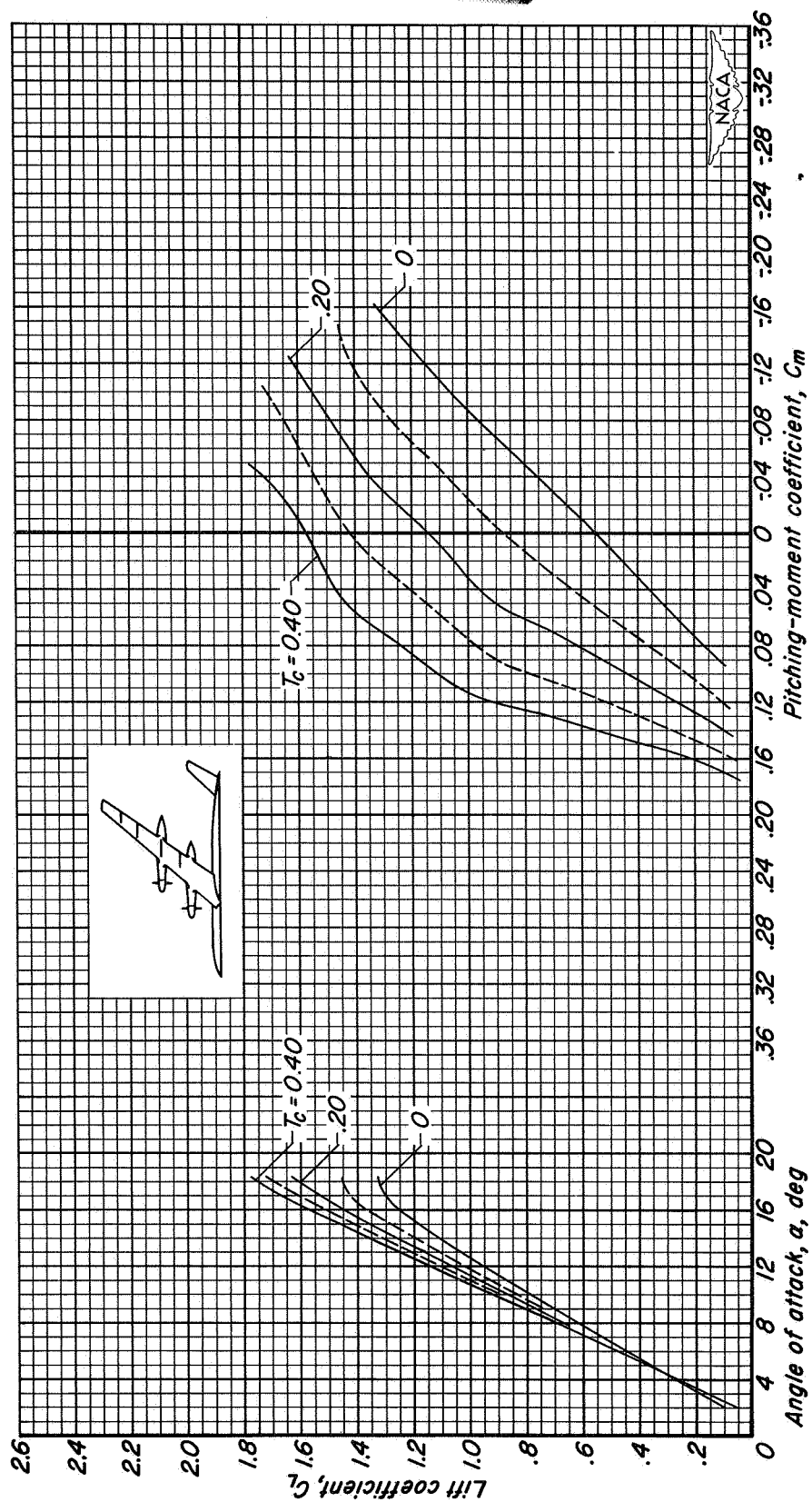
(a) C_L vs α and C_m

Figure 24.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; flaps up;
 $M = 0.123$; $R = 4,000,000$; $\beta = 31^\circ$; $i_t = -4^\circ$.



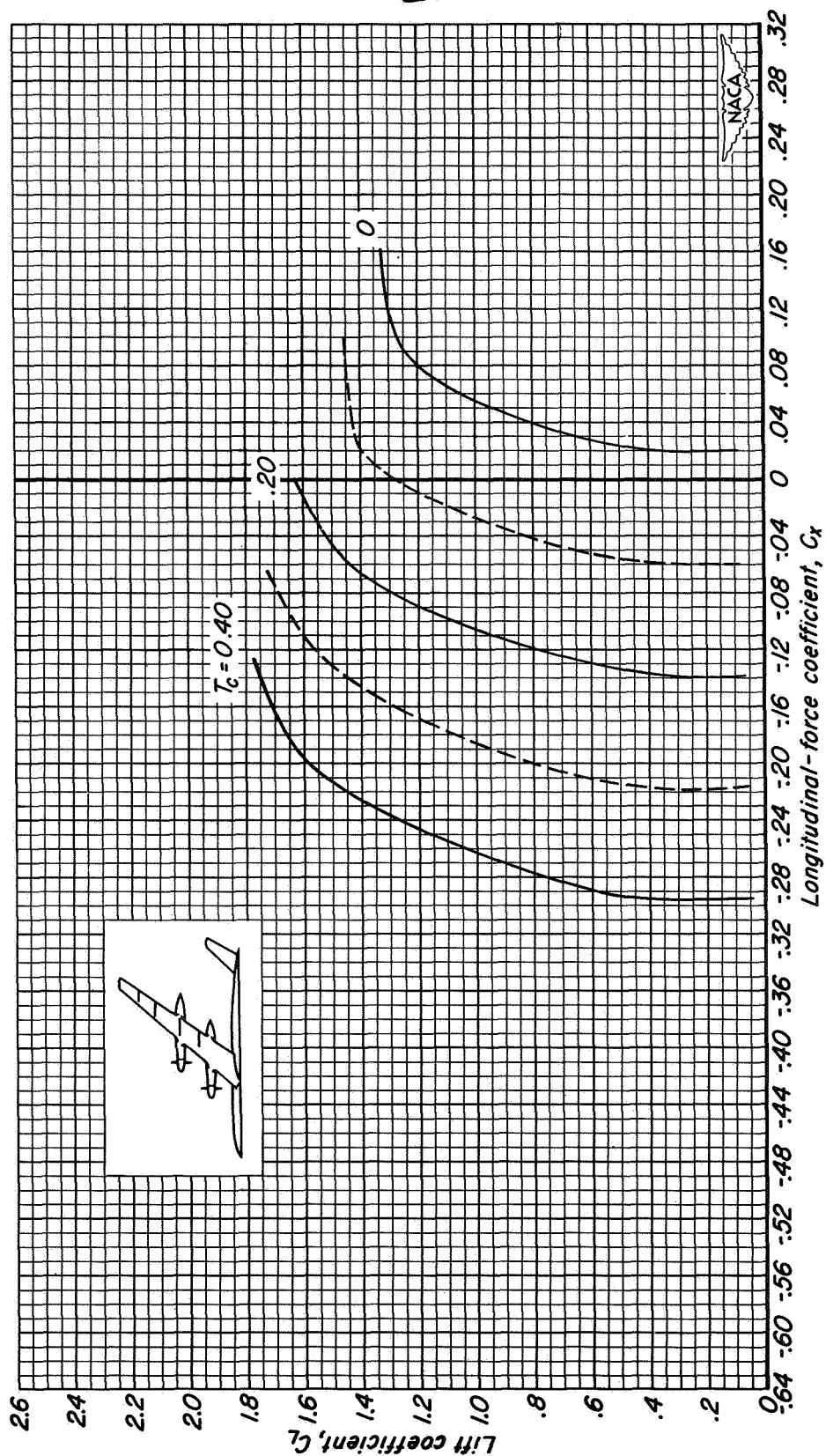
(b) C_L vs C_X

Figure 24.- Concluded.



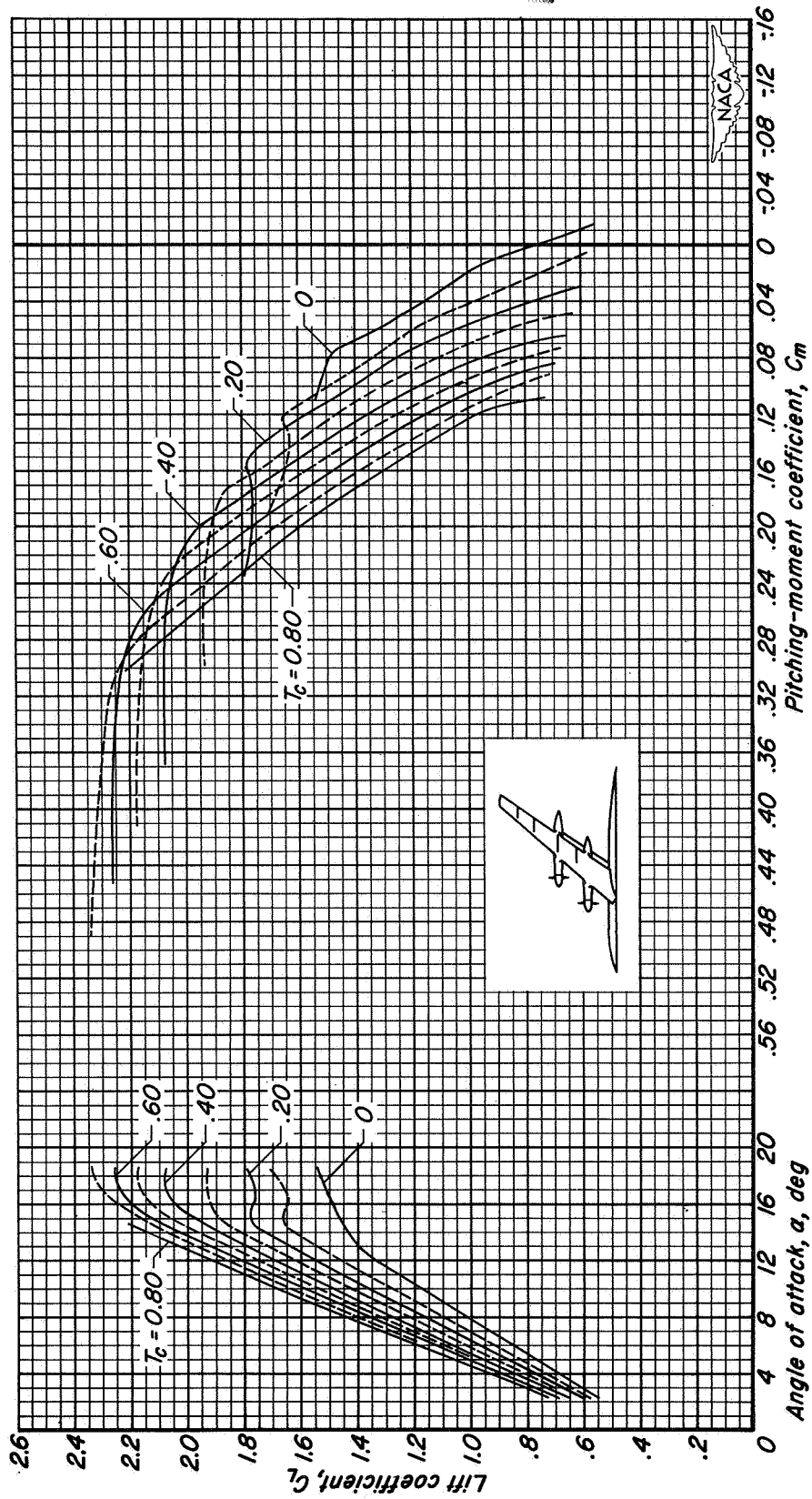
(a) C_L vs α and C_m

Figure 25.- The longitudinal characteristics of the model. Tail height = 0.15 $b/2$; flaps up;
 $M = 0.123$; $R = 4,000,000$; $\beta = 31^\circ$; $i_t = -4^\circ$.



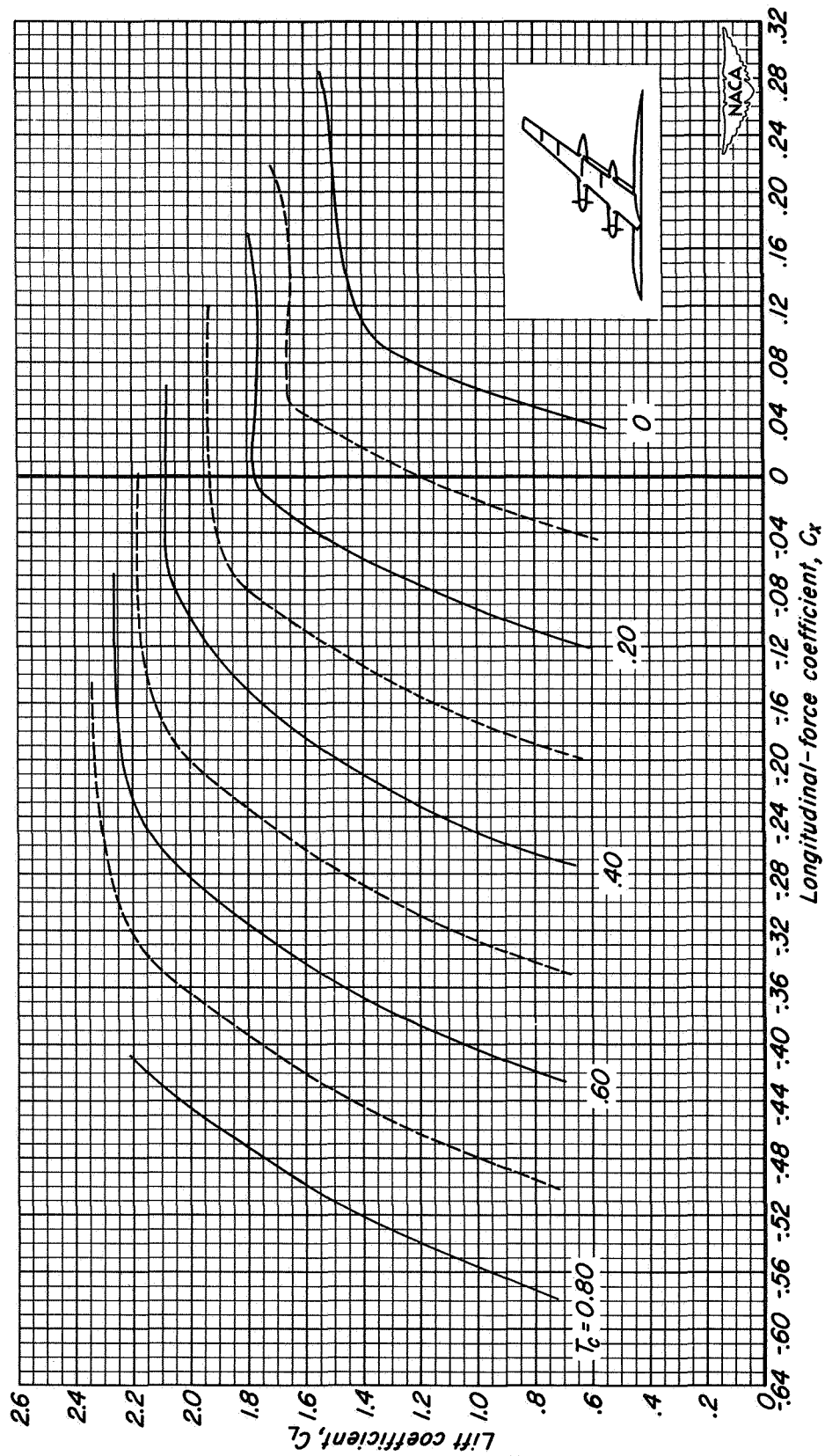
(b) C_L vs C_x

Figure 25.- Concluded.



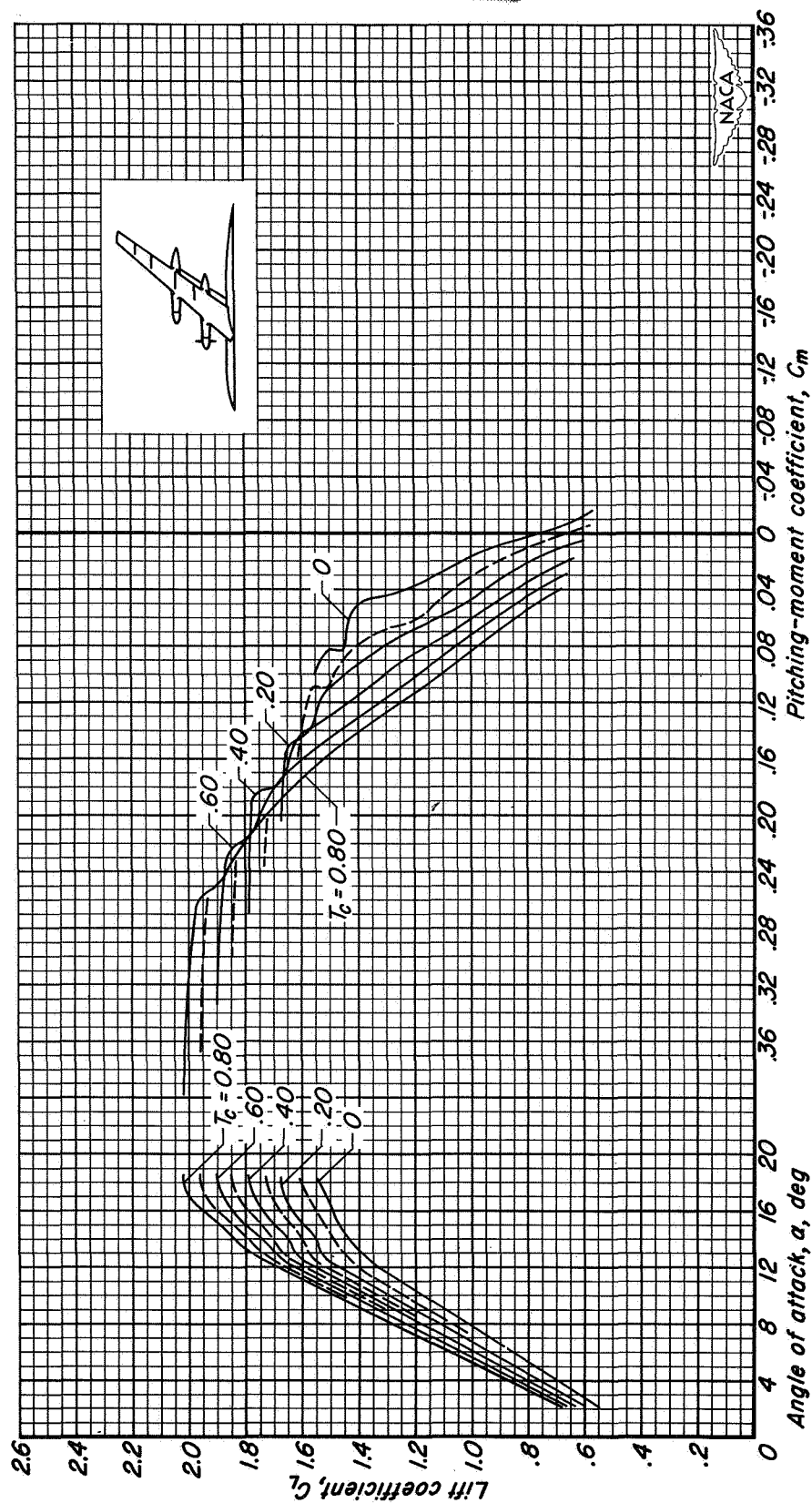
(a) C_L vs α and C_m

Figure 26.- The longitudinal characteristics of the model. Tail removed; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$.



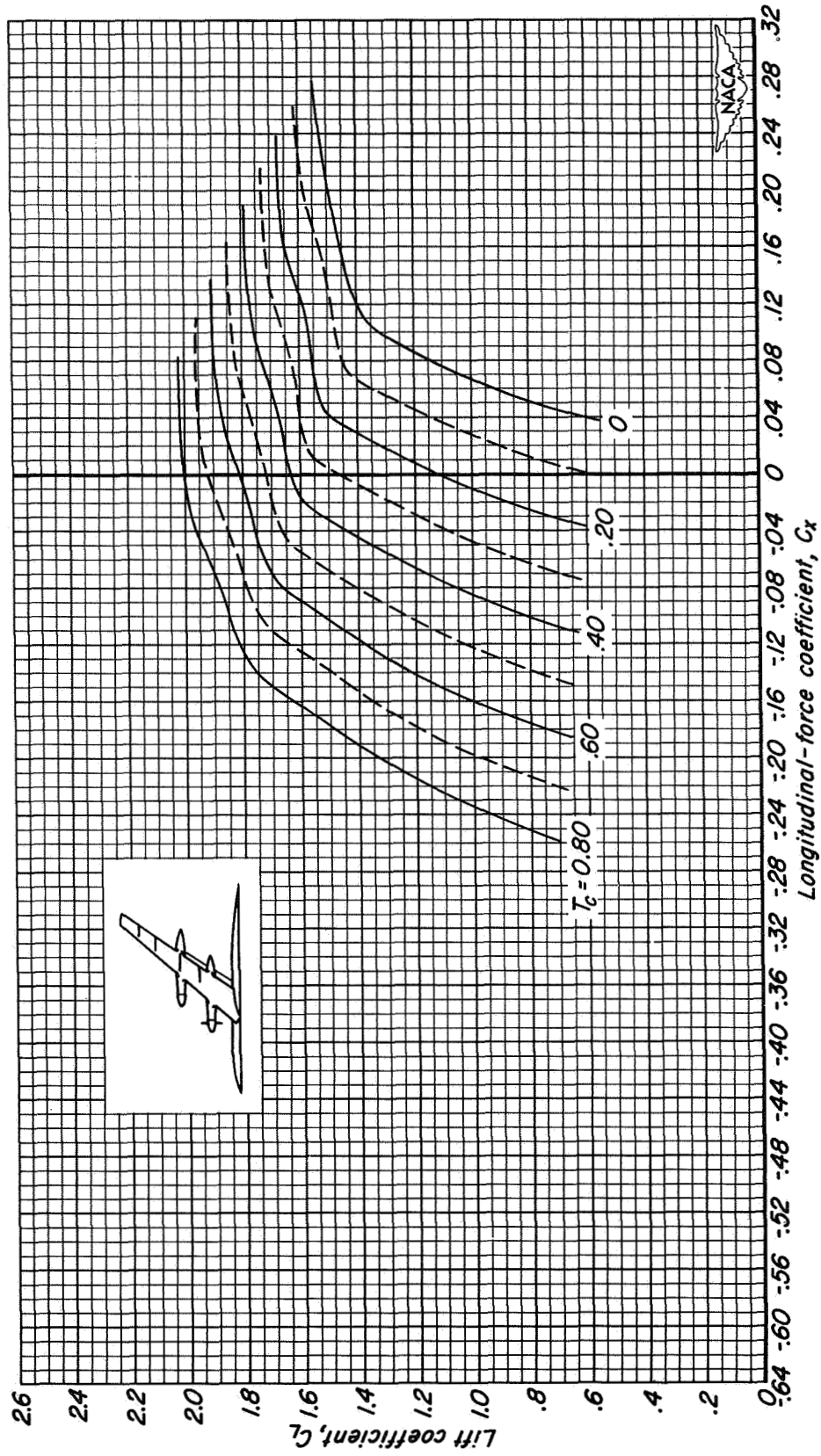
(b) C_L vs C_x

Figure 26.- Concluded.



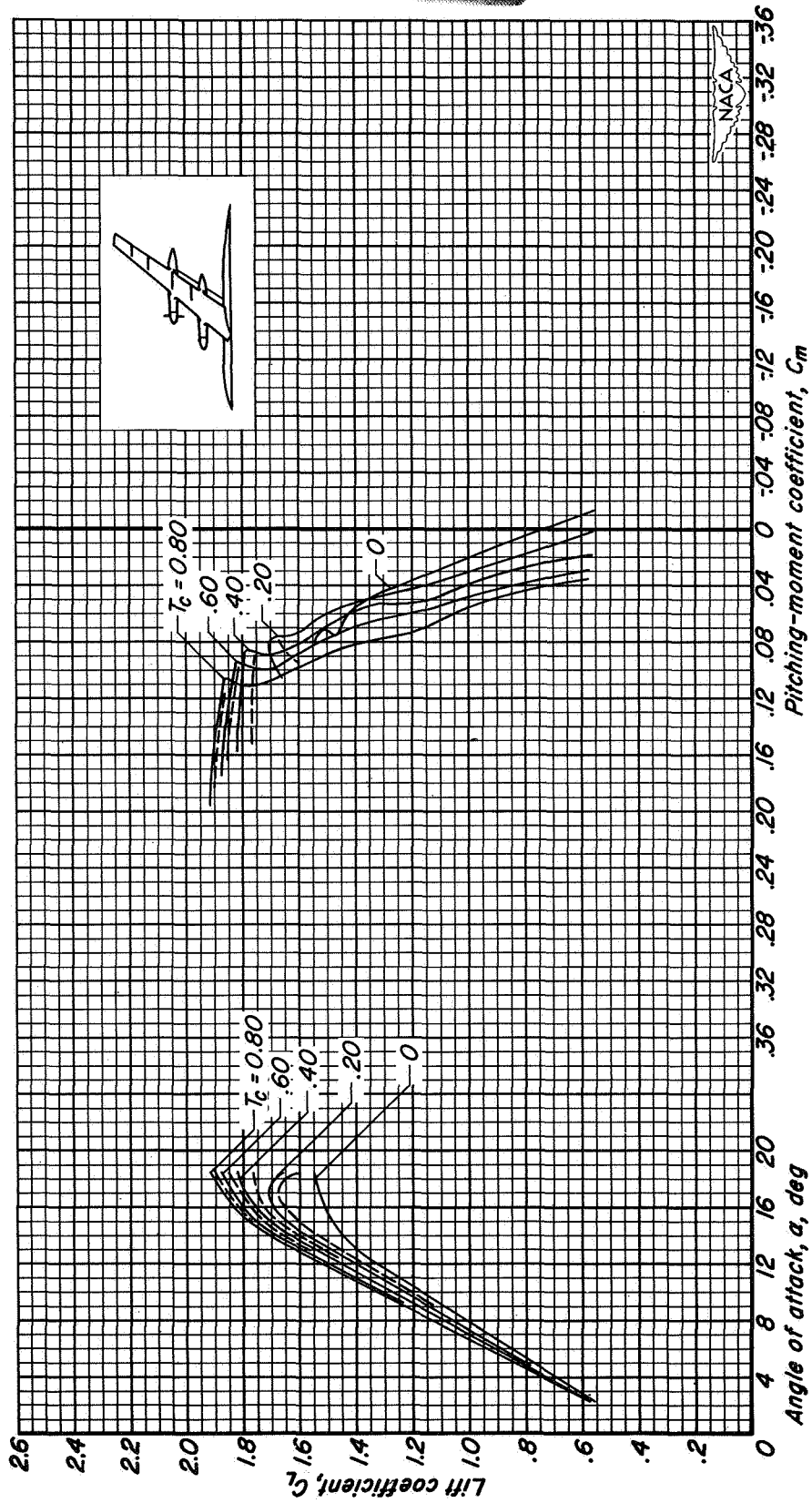
(a) C_L vs α and C_m

Figure 27.- The longitudinal characteristics of the model. Tail removed; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; inboard propeller only.



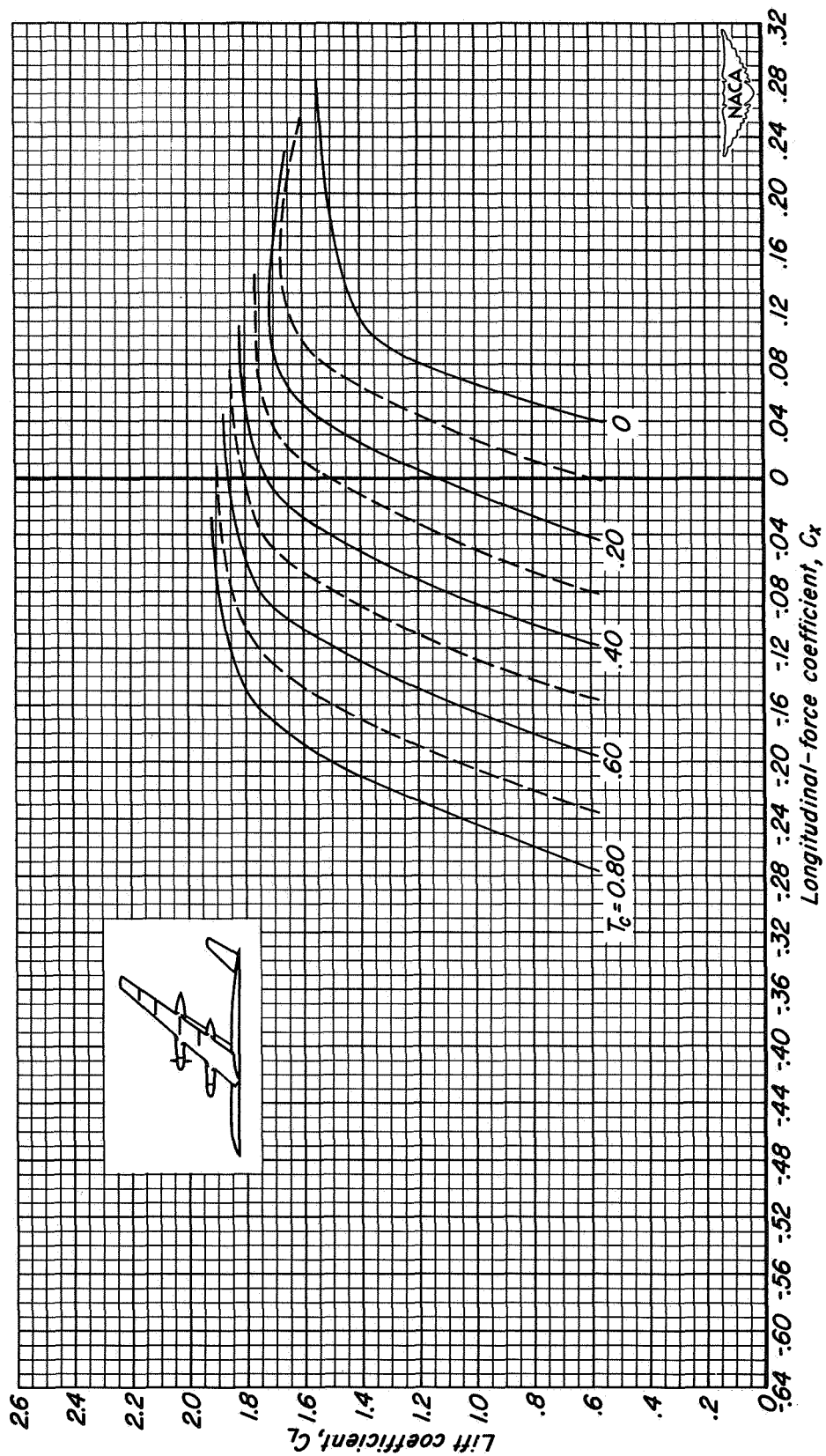
(b) C_L vs C_x

Figure 27.- Concluded.



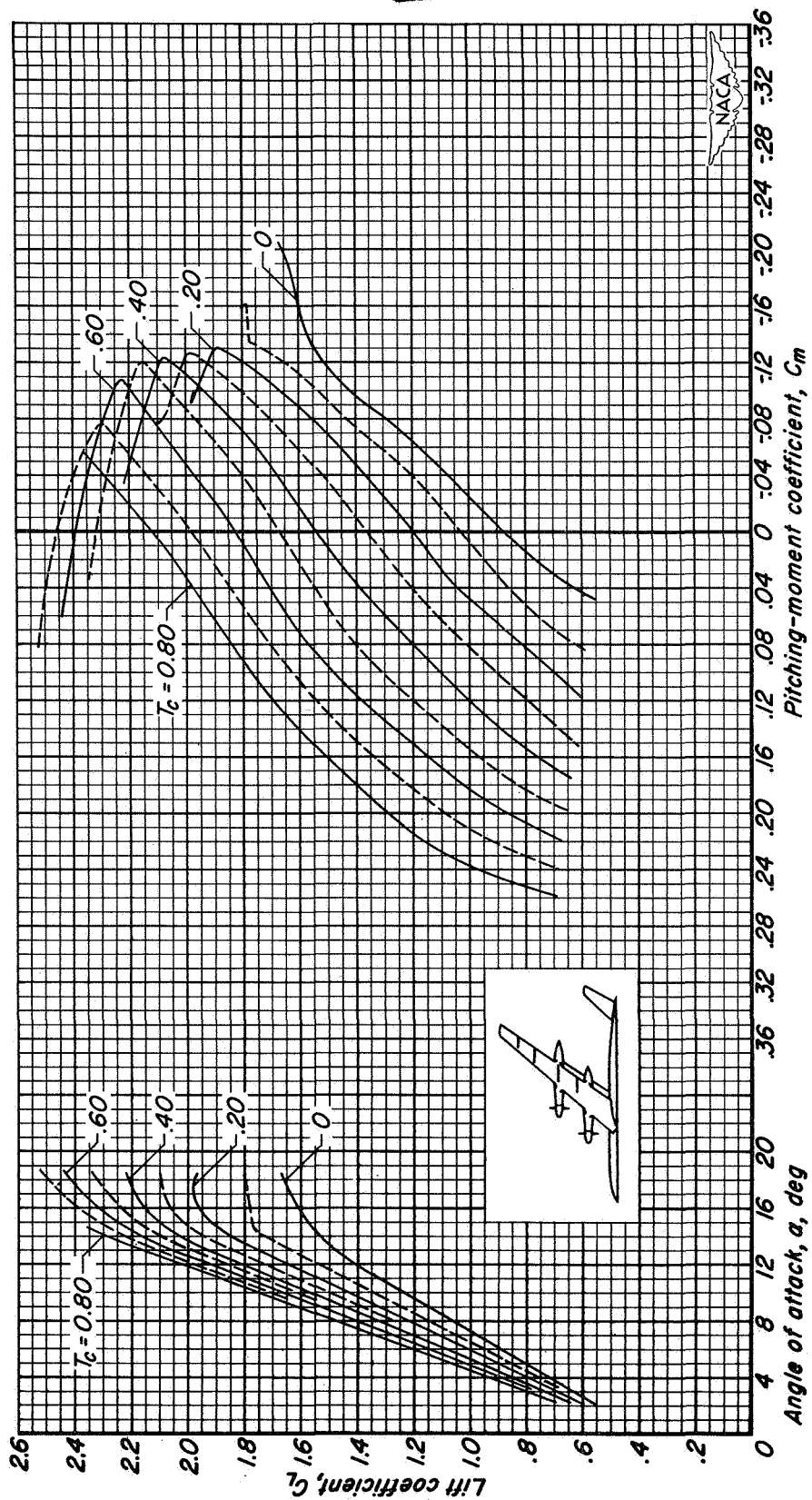
(a) C_L vs α and C_m

Figure 28.- The longitudinal characteristics of the model. Tail removed; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; outboard propeller only.



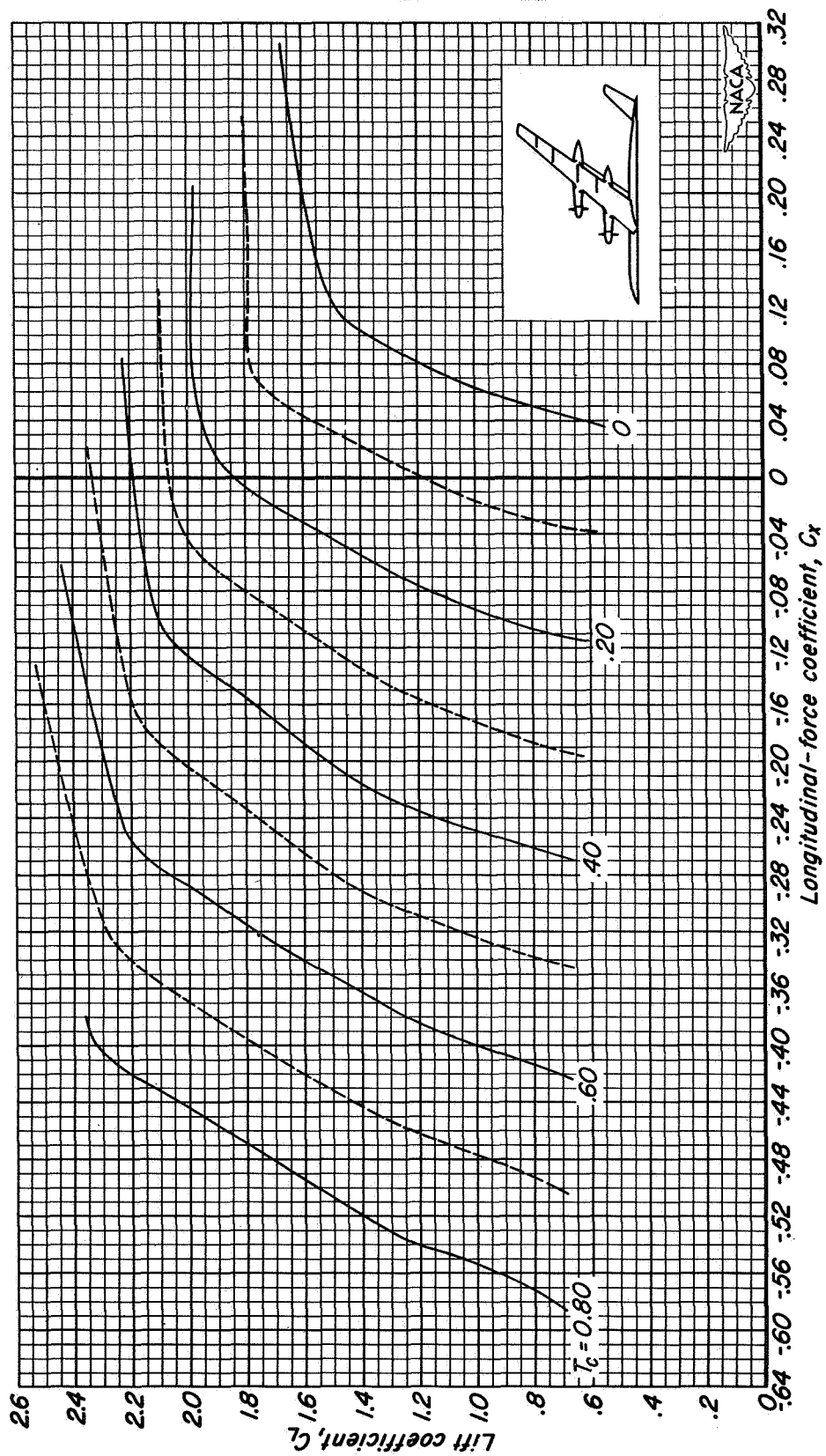
(b) C_L vs C_x

Figure 28.- Concluded.



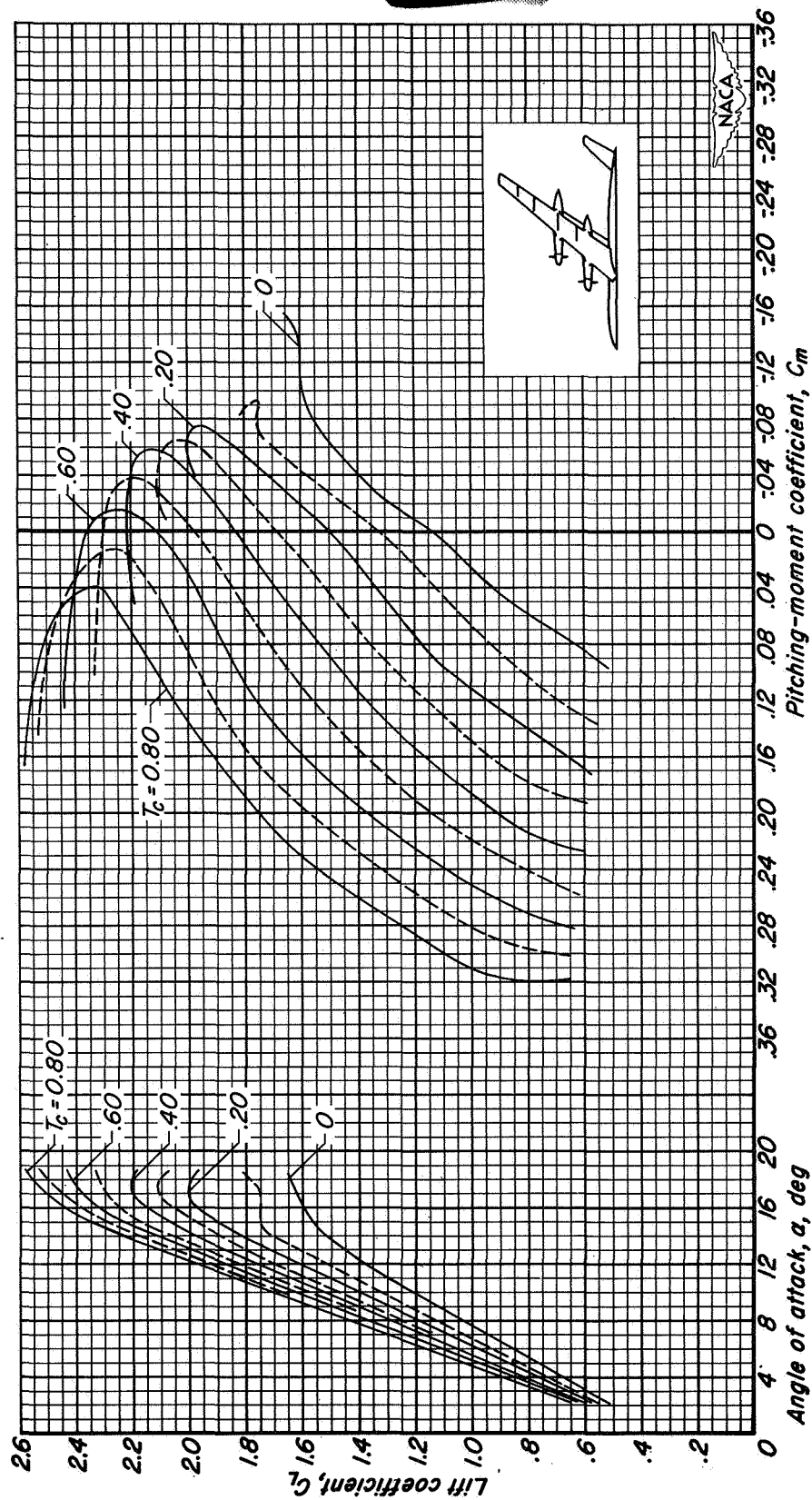
(a) C_L vs α and C_m

Figure 29.- The longitudinal characteristics of the model. Tail height = 0; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$.



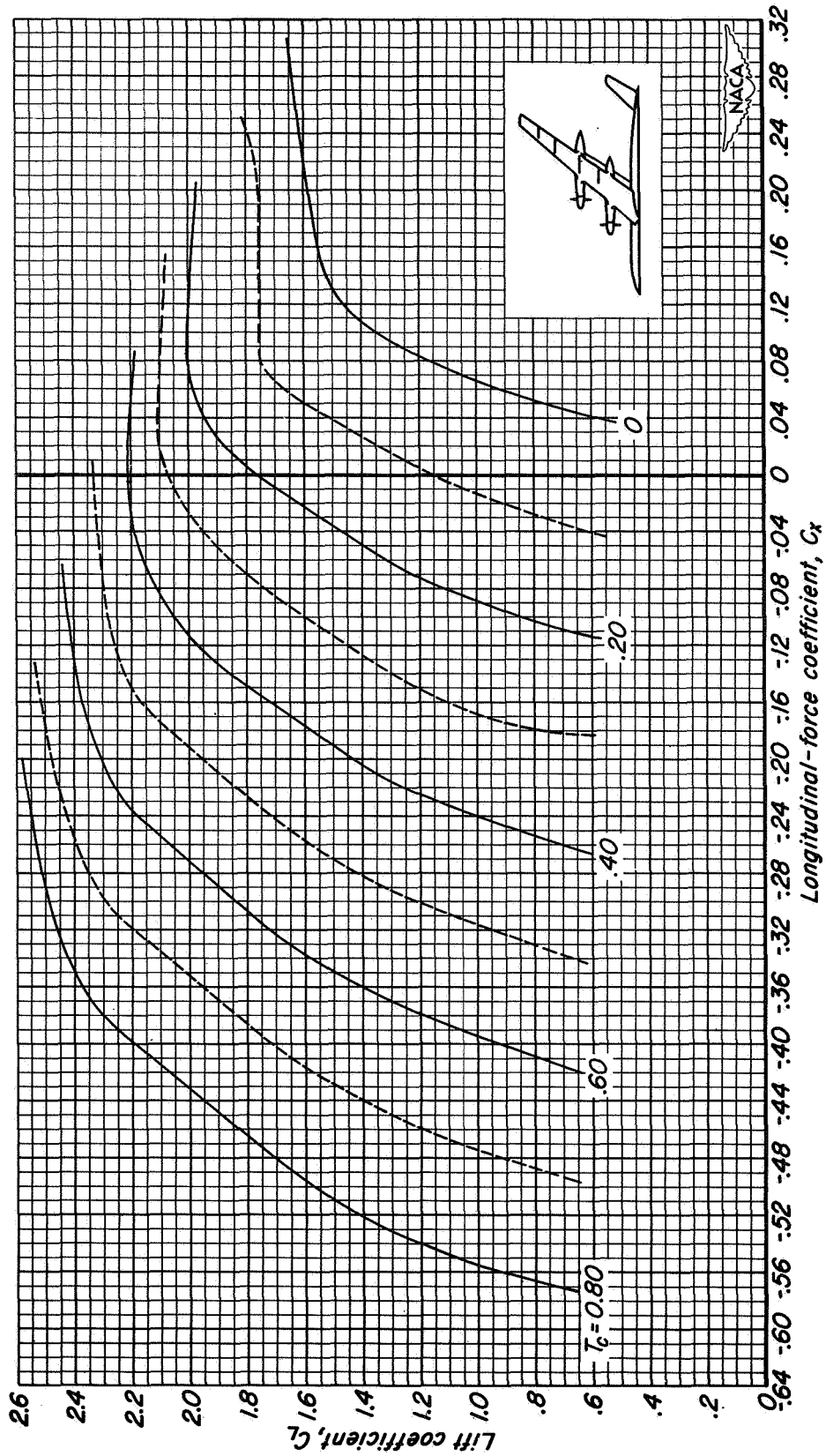
(b) C_L vs C_x

Figure 29.- Concluded.



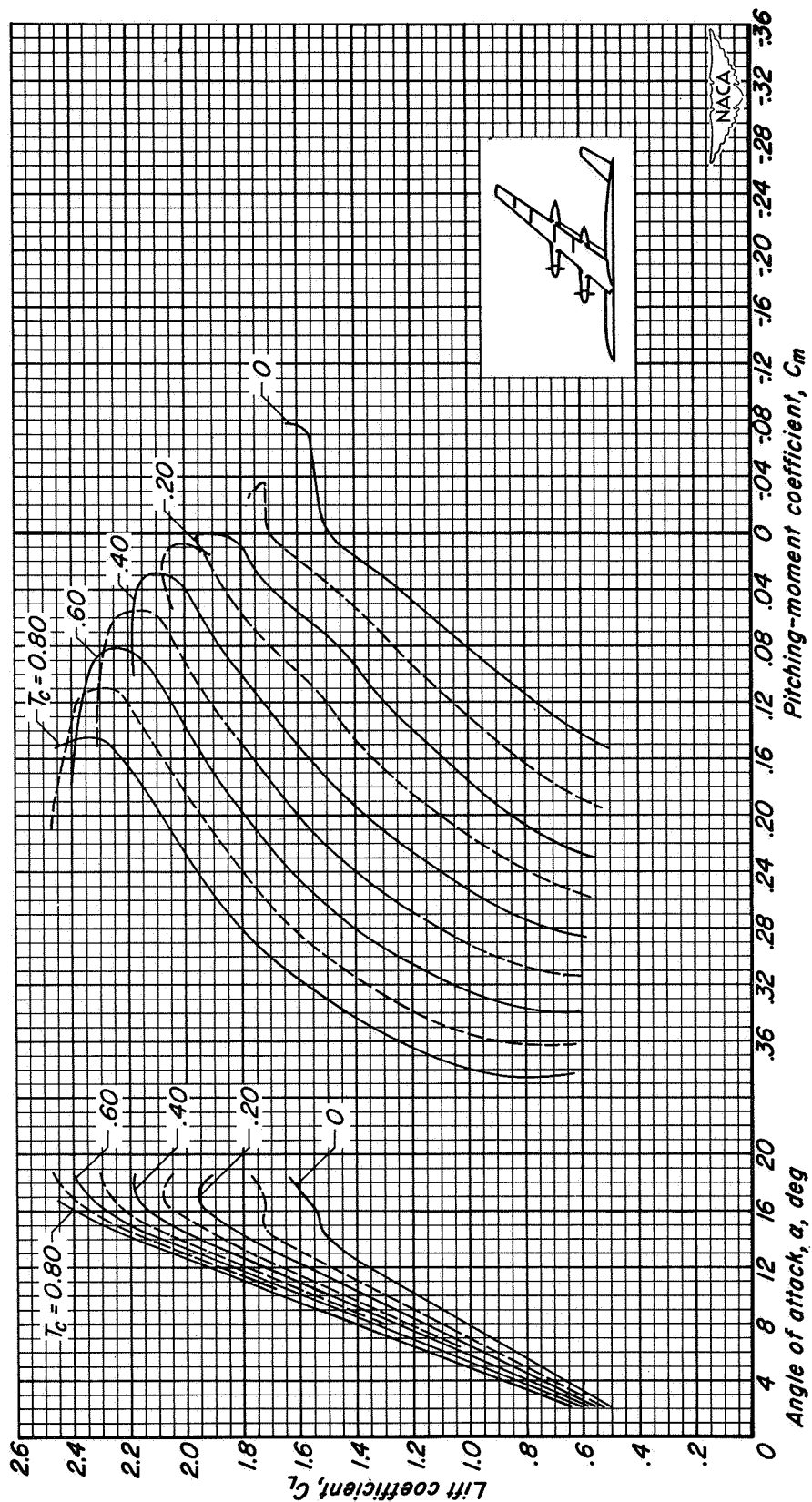
(a) C_L vs α and C_m

Figure 30.- The longitudinal characteristics of the model. Tail height = 0; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -2^\circ$.



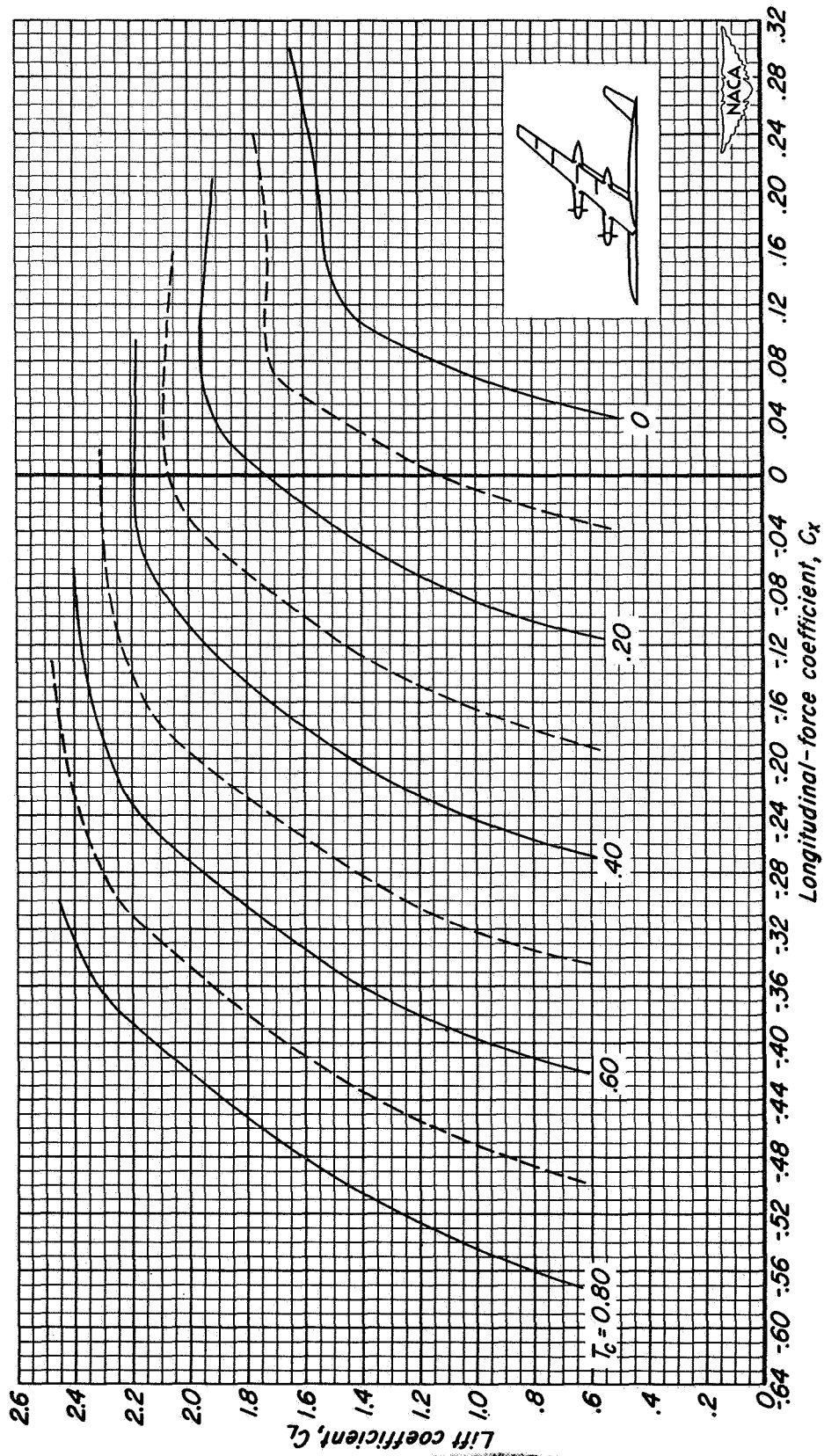
(b) C_L vs C_x

Figure 30.- Concluded.



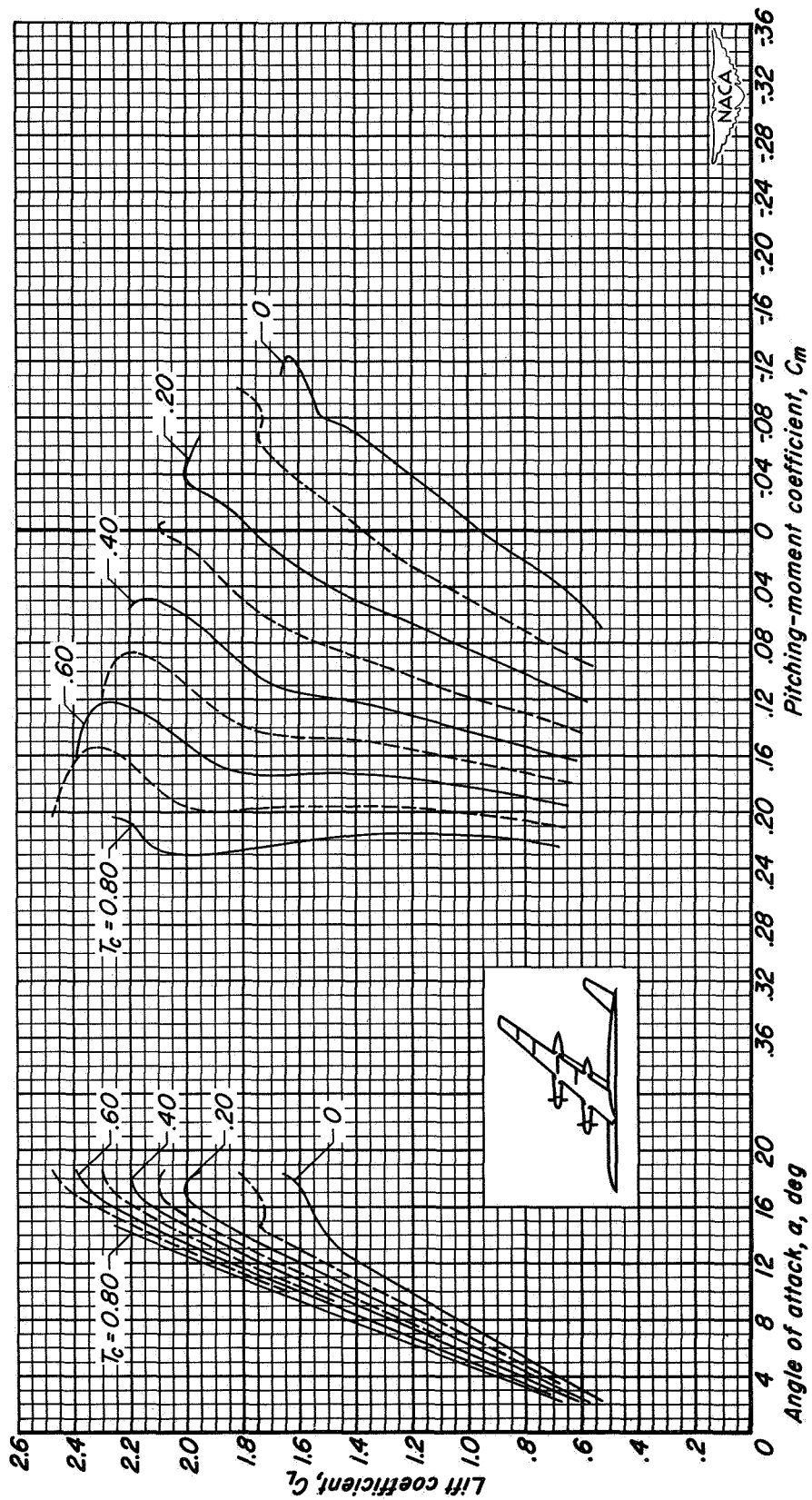
(a) C_L vs α and C_m

Figure 31.- The longitudinal characteristics of the model. Tail height = 0; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$.



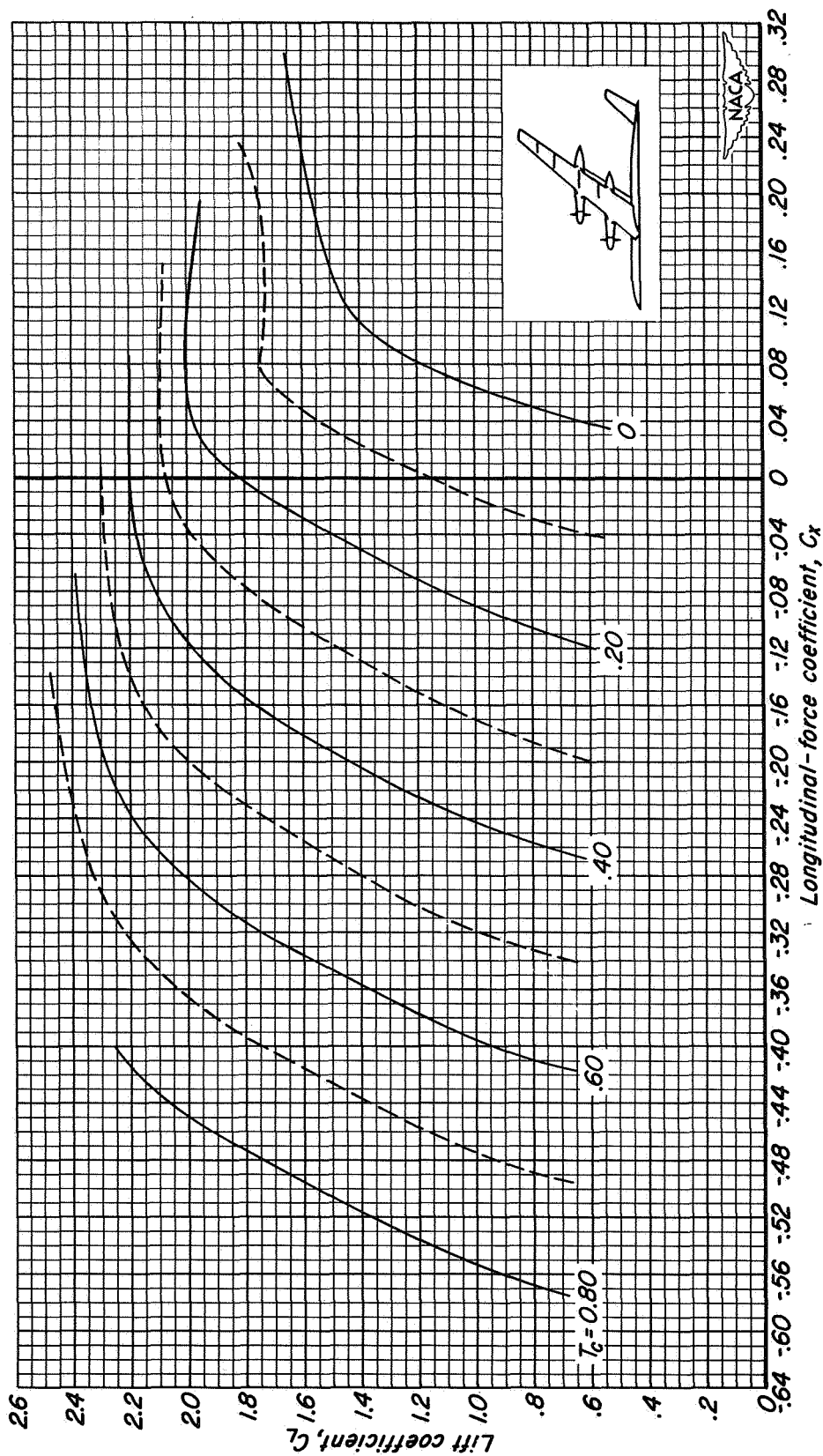
(b) C_L vs C_X

Figure 31.- Concluded.



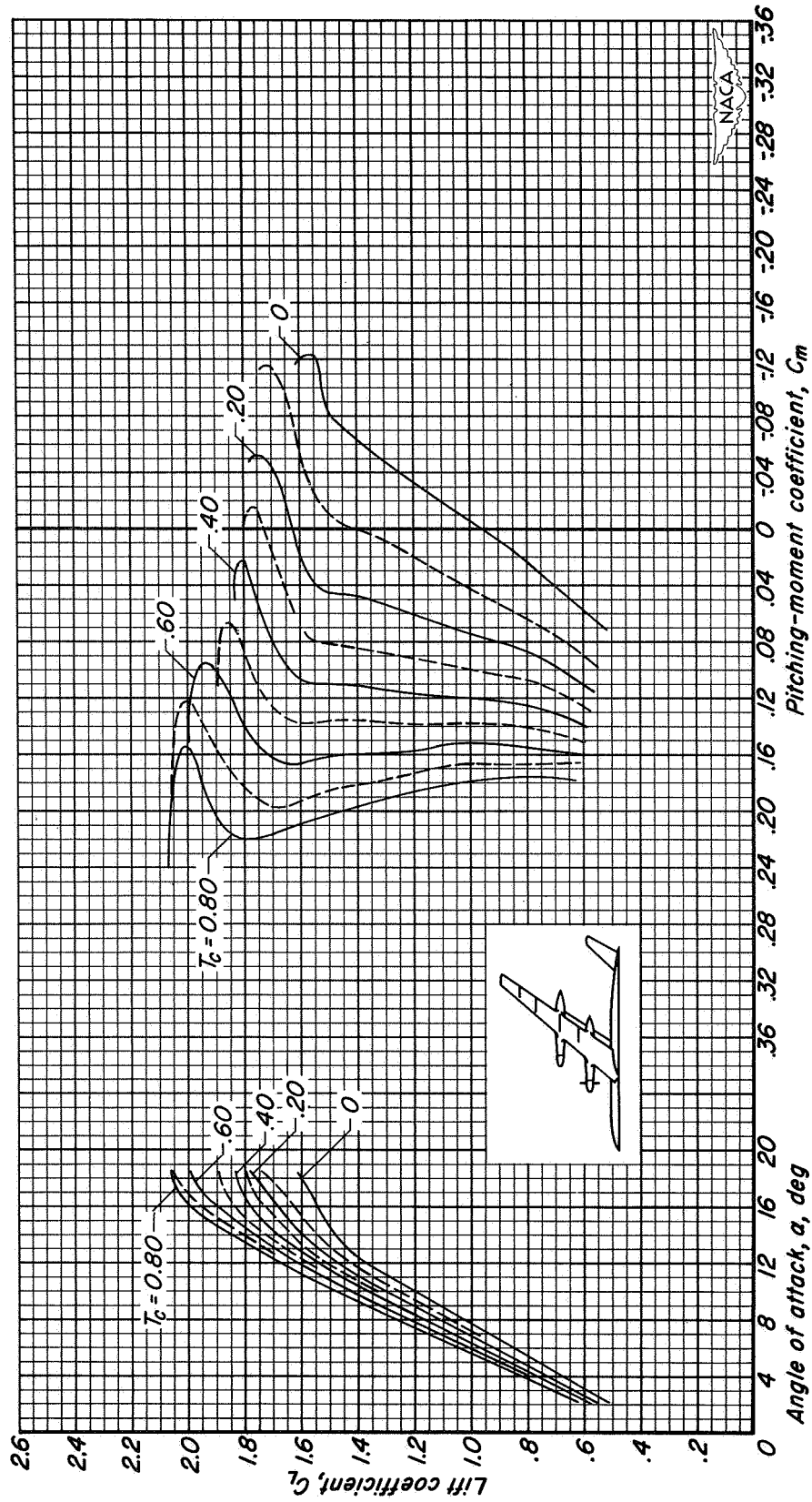
(a) C_L vs α and C_m

Figure 32.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$.



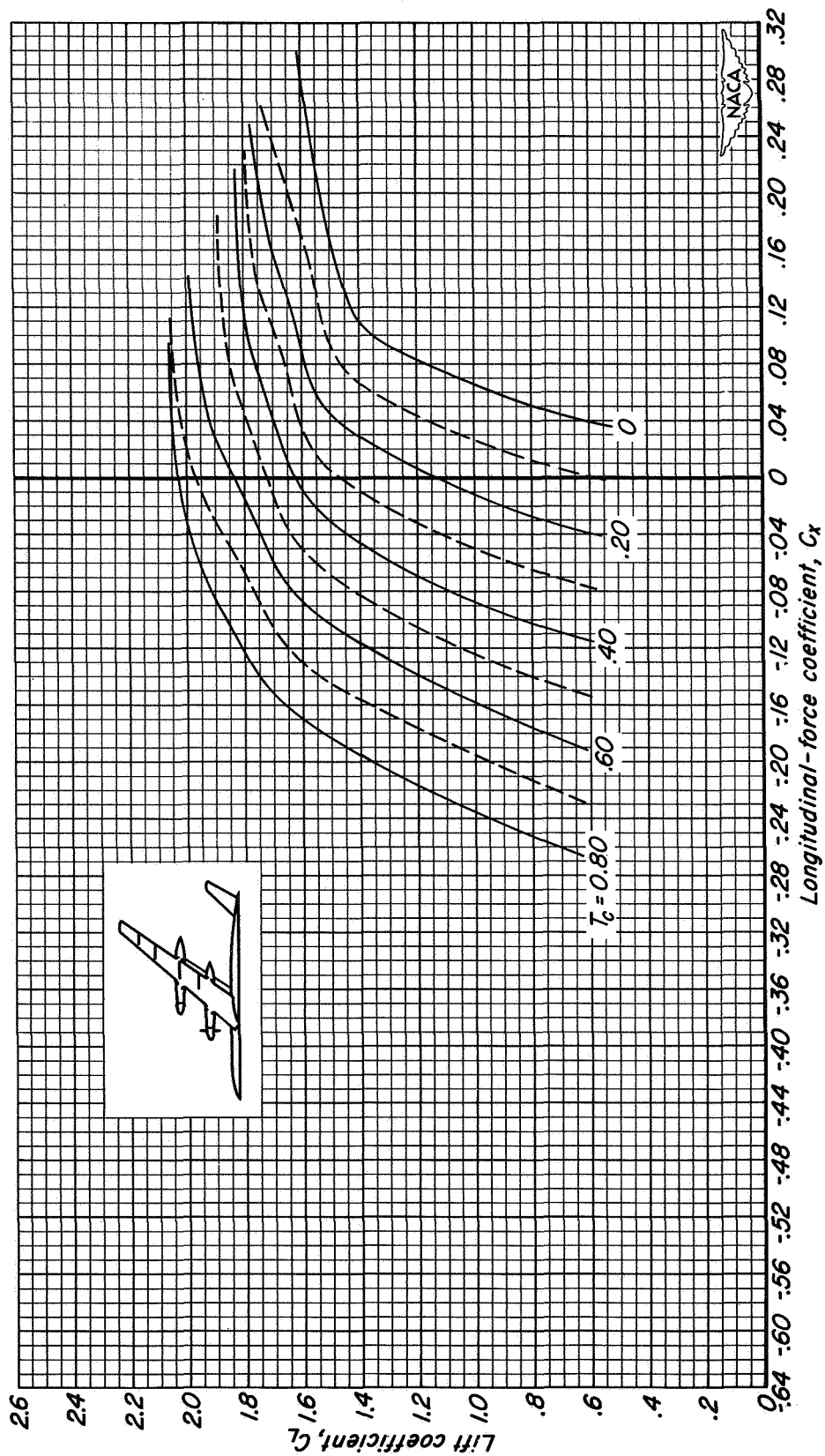
(b) C_L vs C_x

Figure 32.- Concluded.



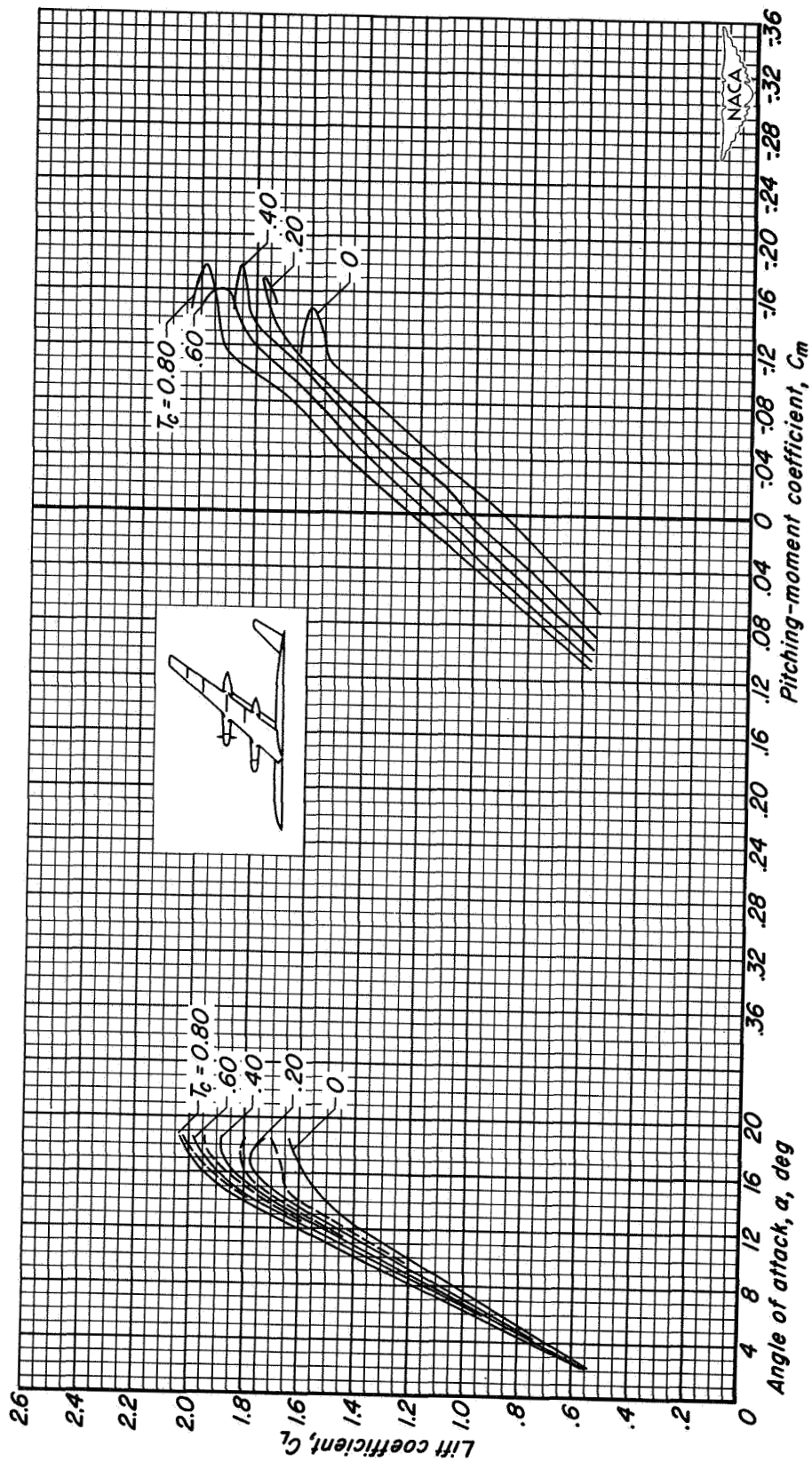
(a) C_L vs α and C_m

Figure 33.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$; inboard propeller only.



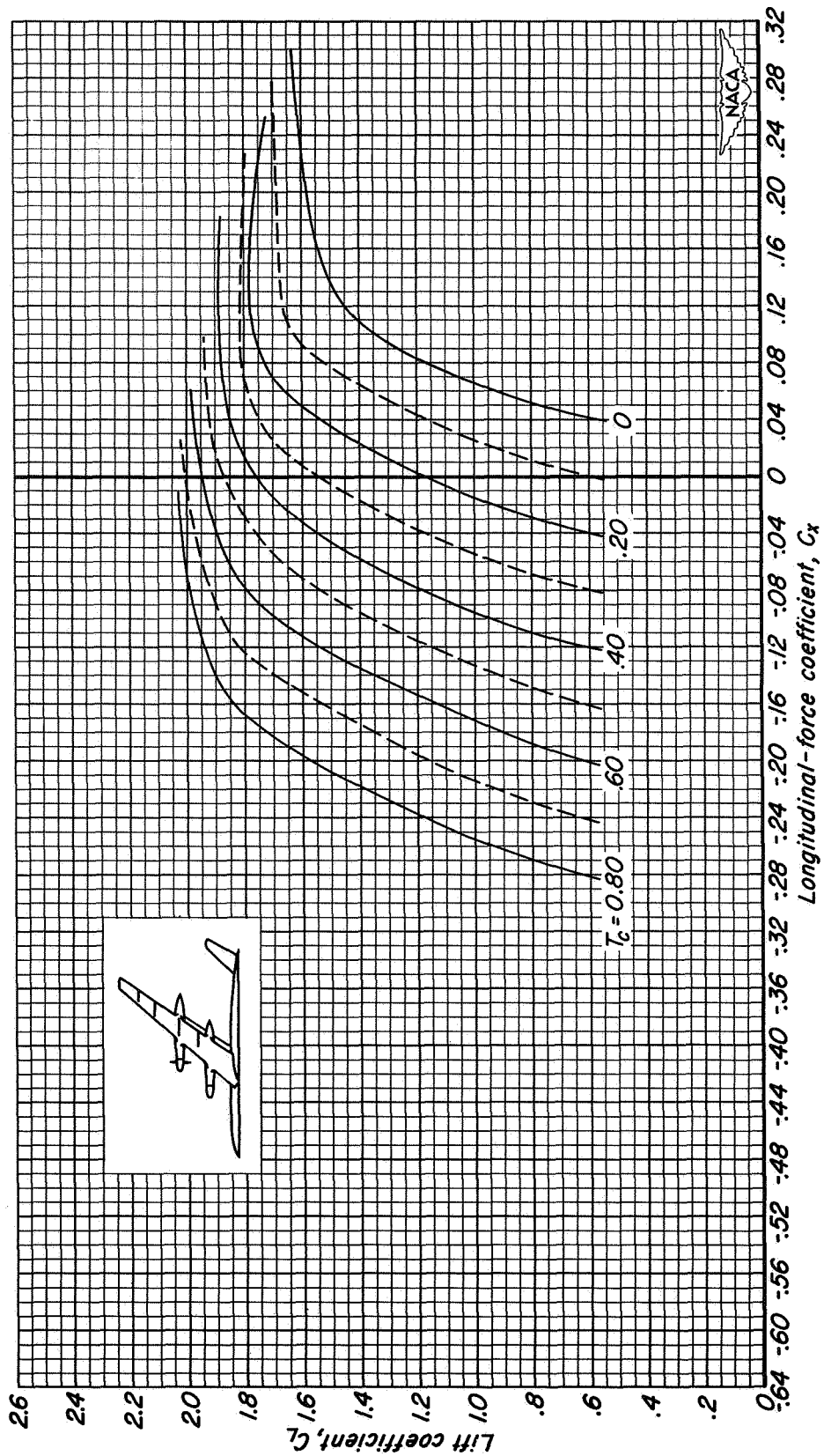
(b) C_L vs C_x

Figure 33.- Concluded.



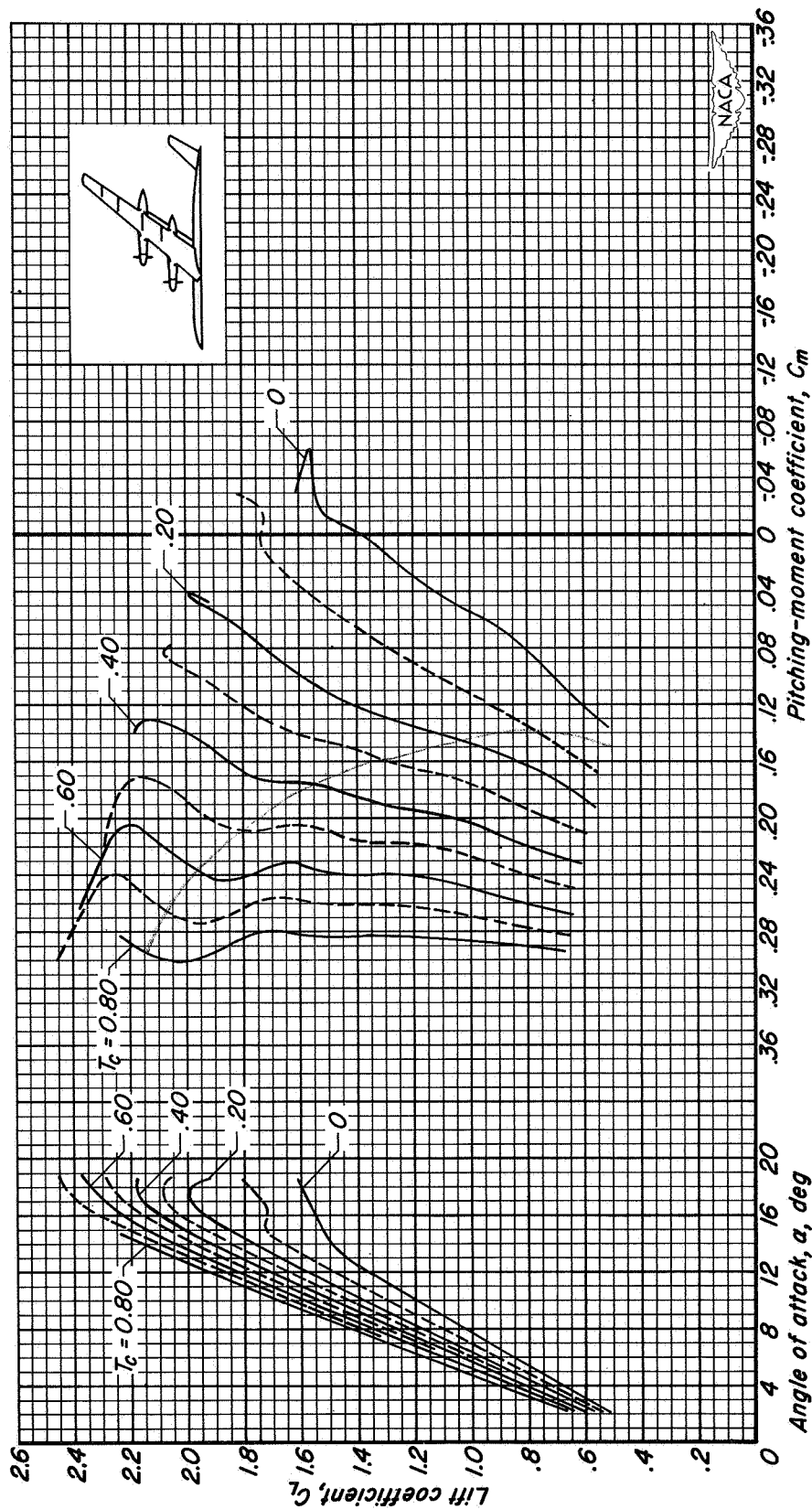
(a) C_L vs α and C_m

Figure 34.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; inboard flaps deflected 30° ; $M = 4,000,000$; $\beta = 26^\circ$; $i_t = 0^\circ$; outboard propeller only.



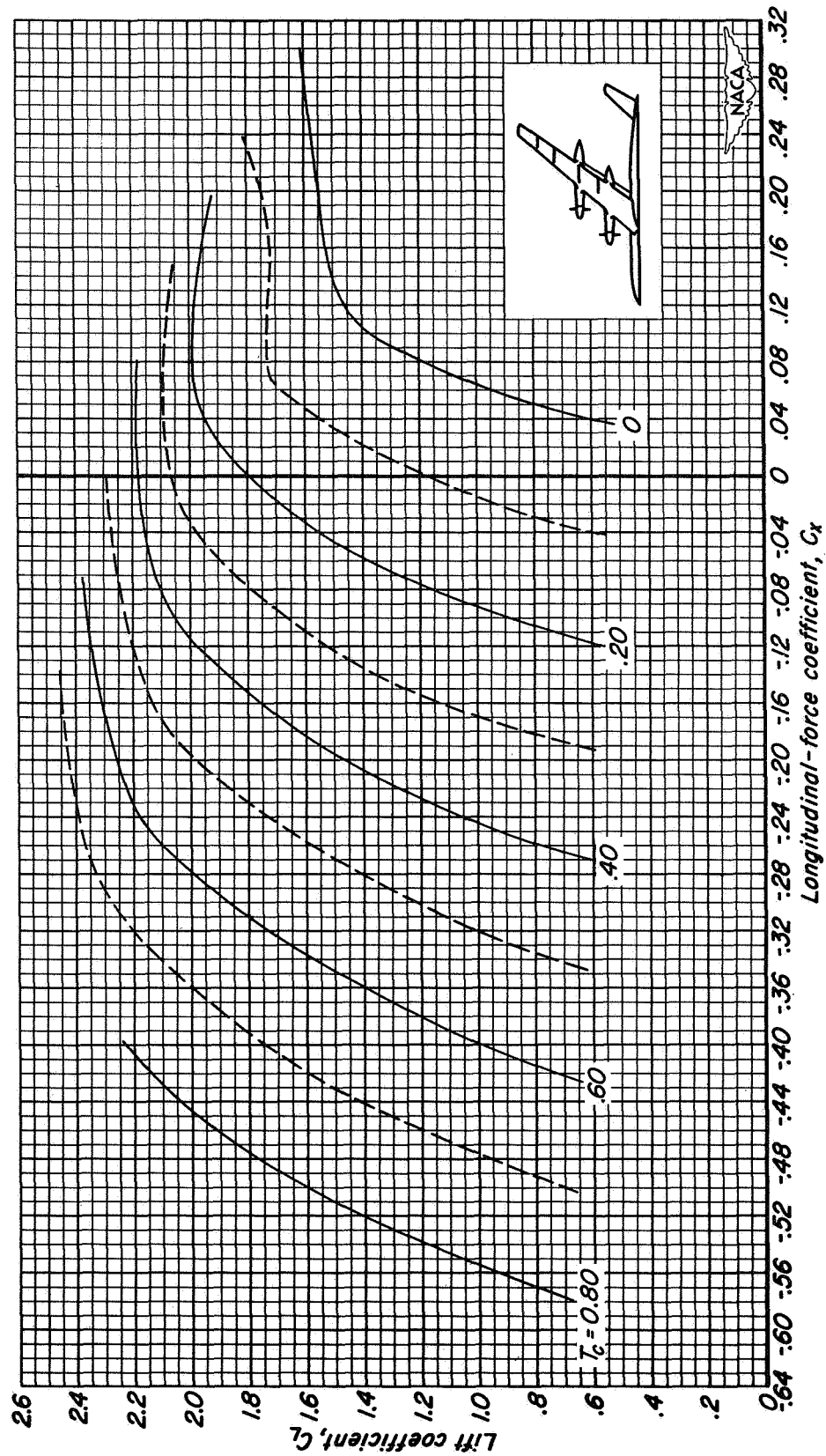
(b) C_L vs C_X

Figure 34.- Concluded.



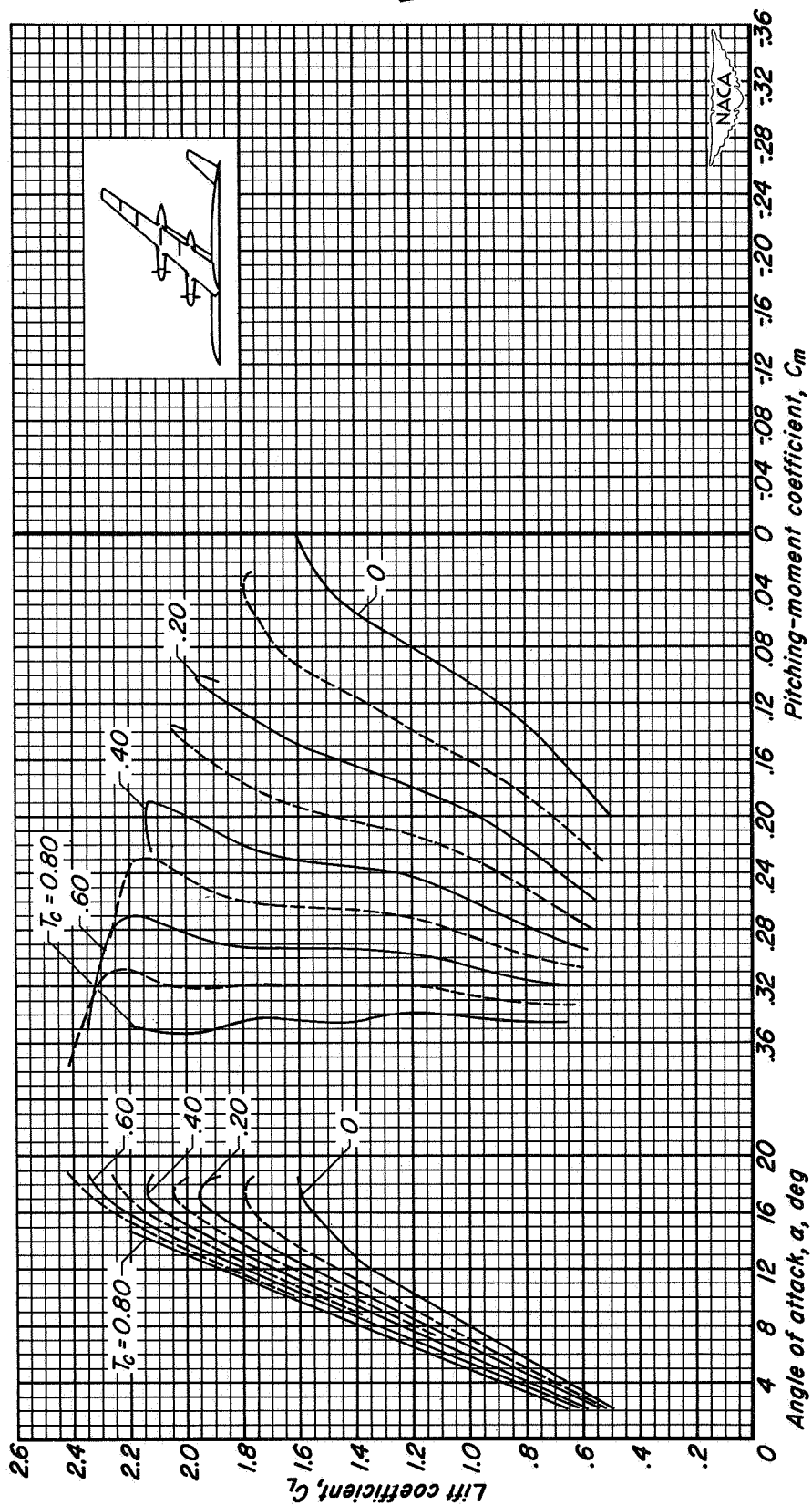
(a) C_L vs α and C_m

Figure 35.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -2^\circ$.



(b) C_L vs C_X

Figure 35.- Concluded.



(a) C_L vs α and C_m

Figure 36.- The longitudinal characteristics of the model. Tail height $0.10 b/2$; inboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -4^\circ$.

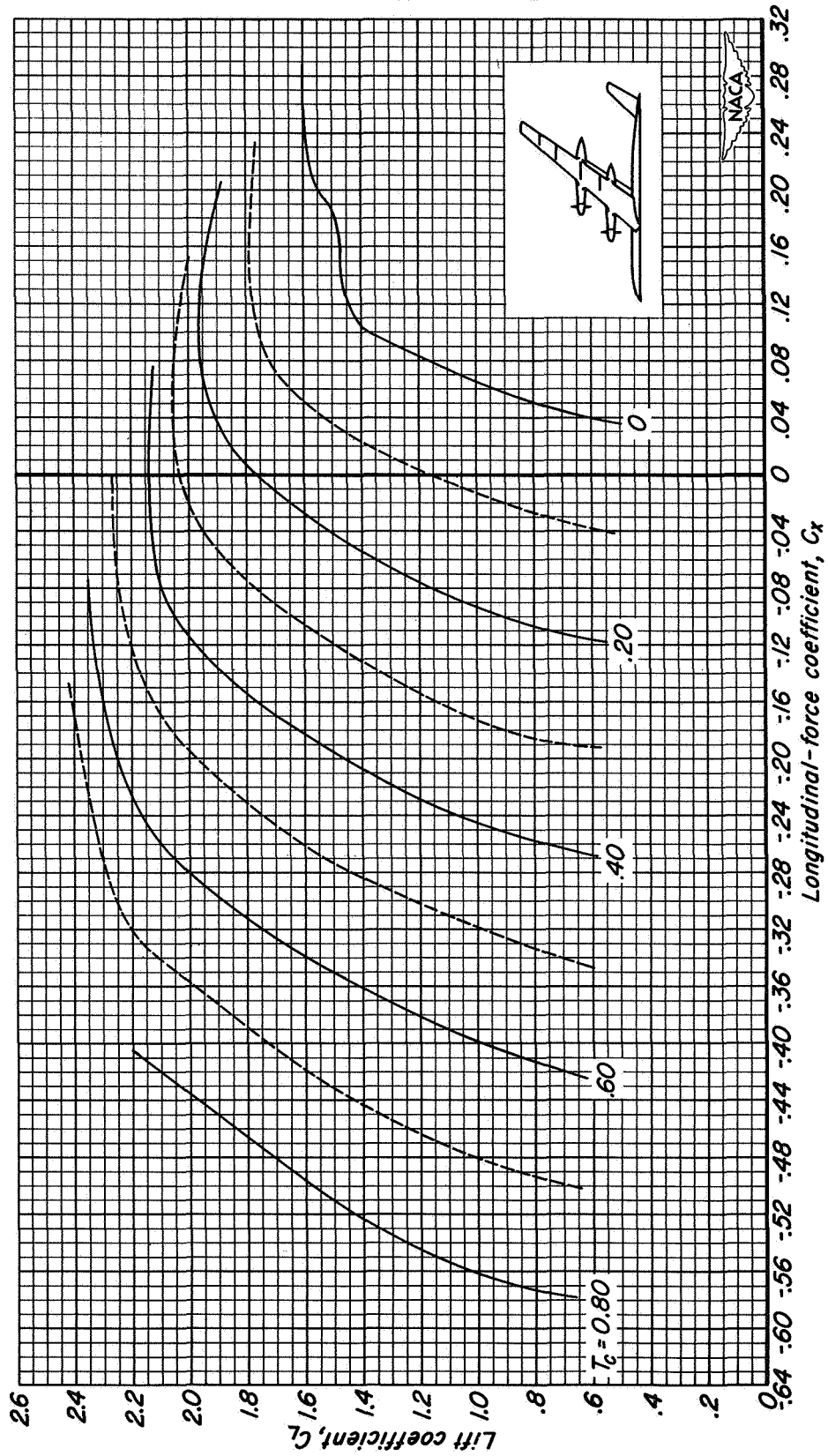
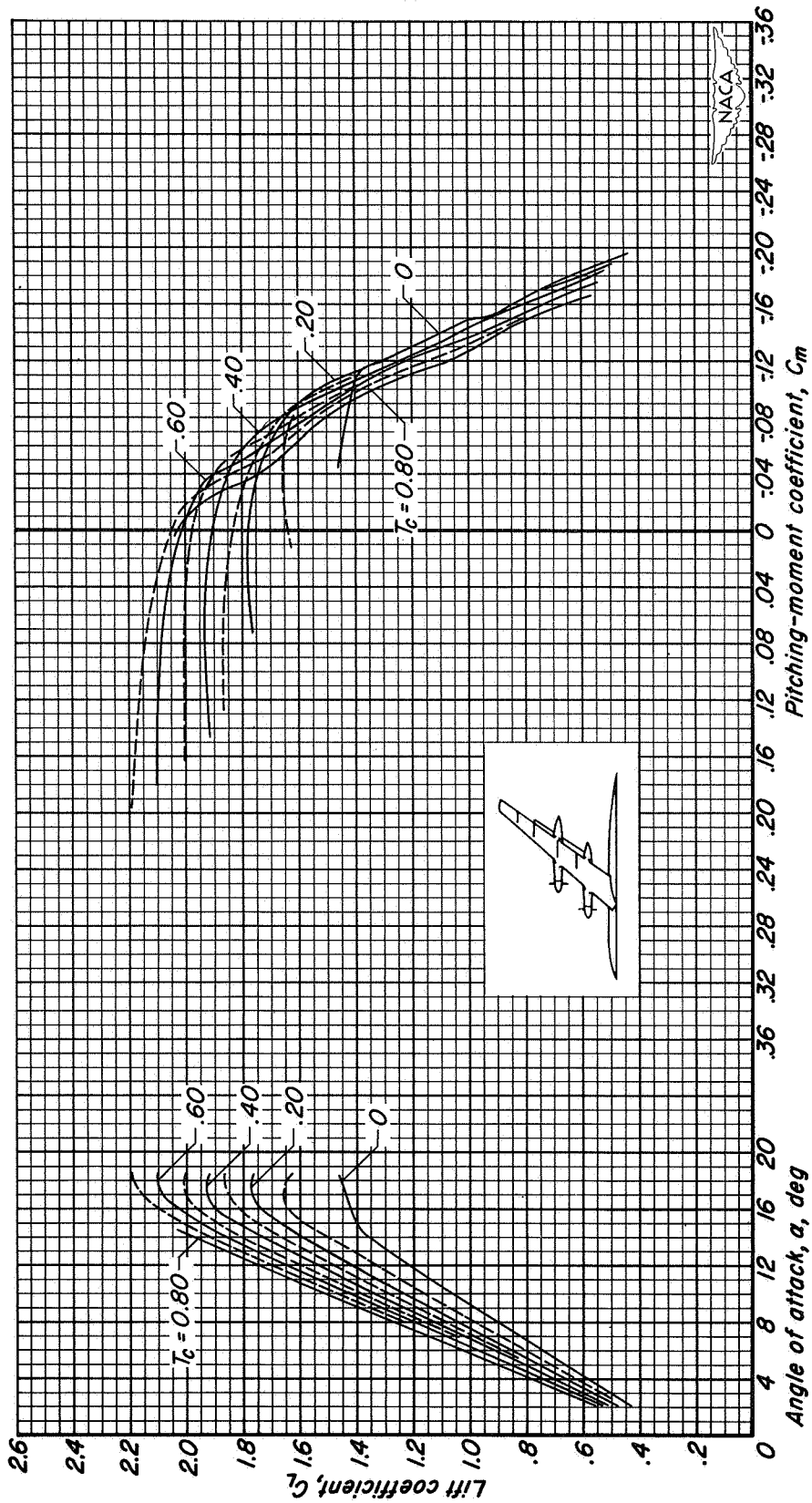
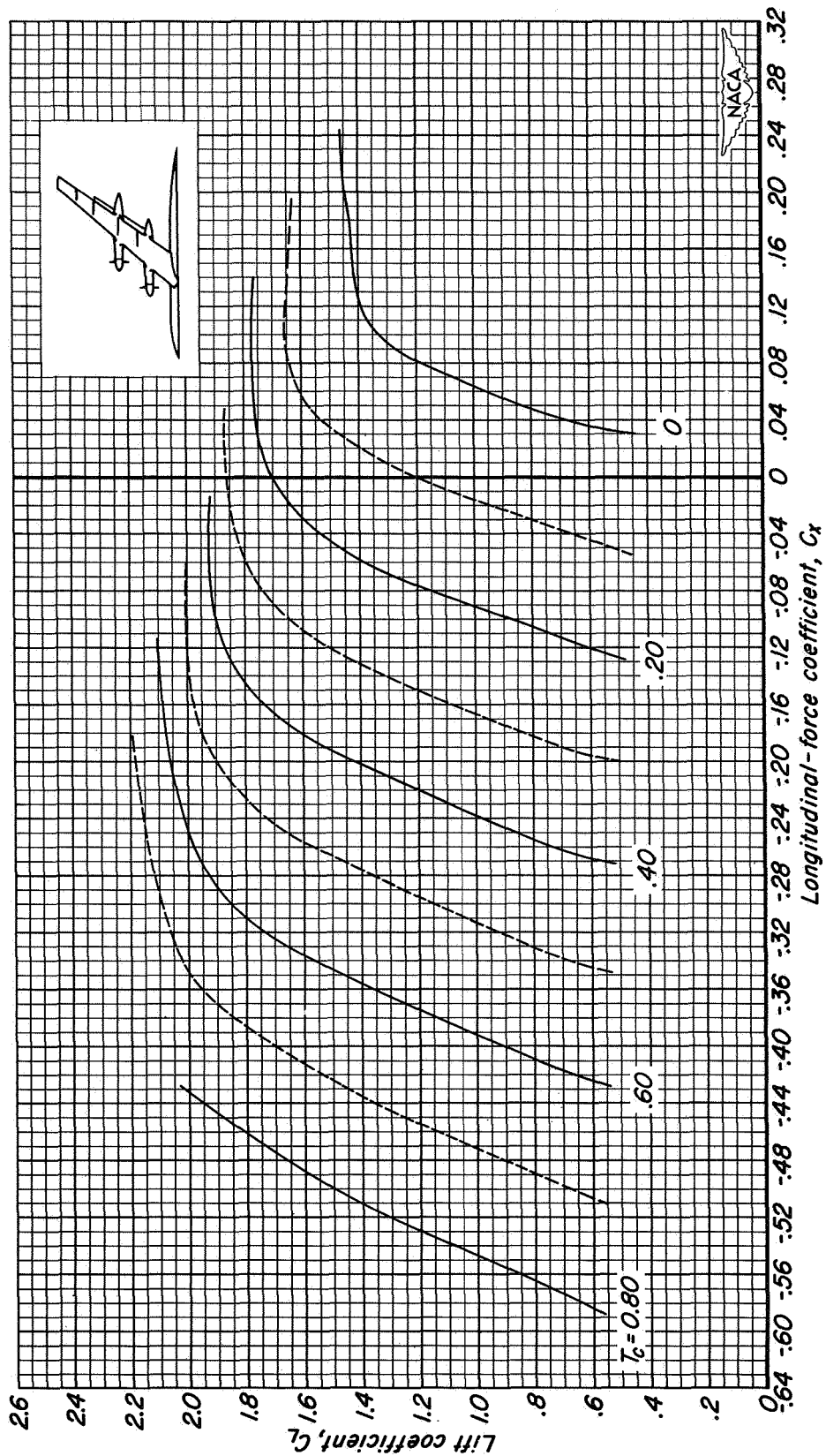
(b) C_L vs C_x

Figure 36.- Concluded.



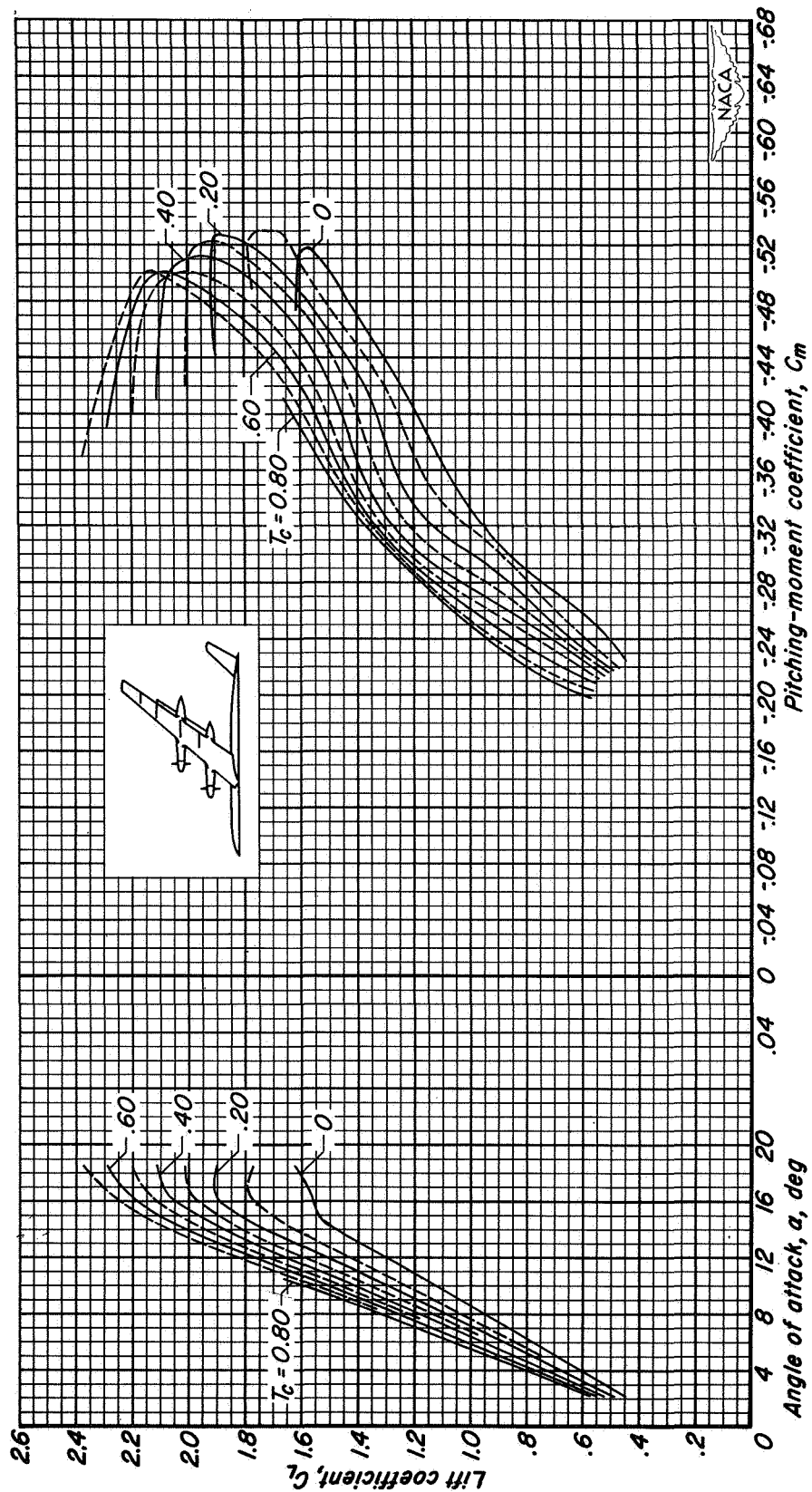
(a) C_L vs α and C_m

Figure 37.- The longitudinal characteristics of the model. Tail removed; outboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$.



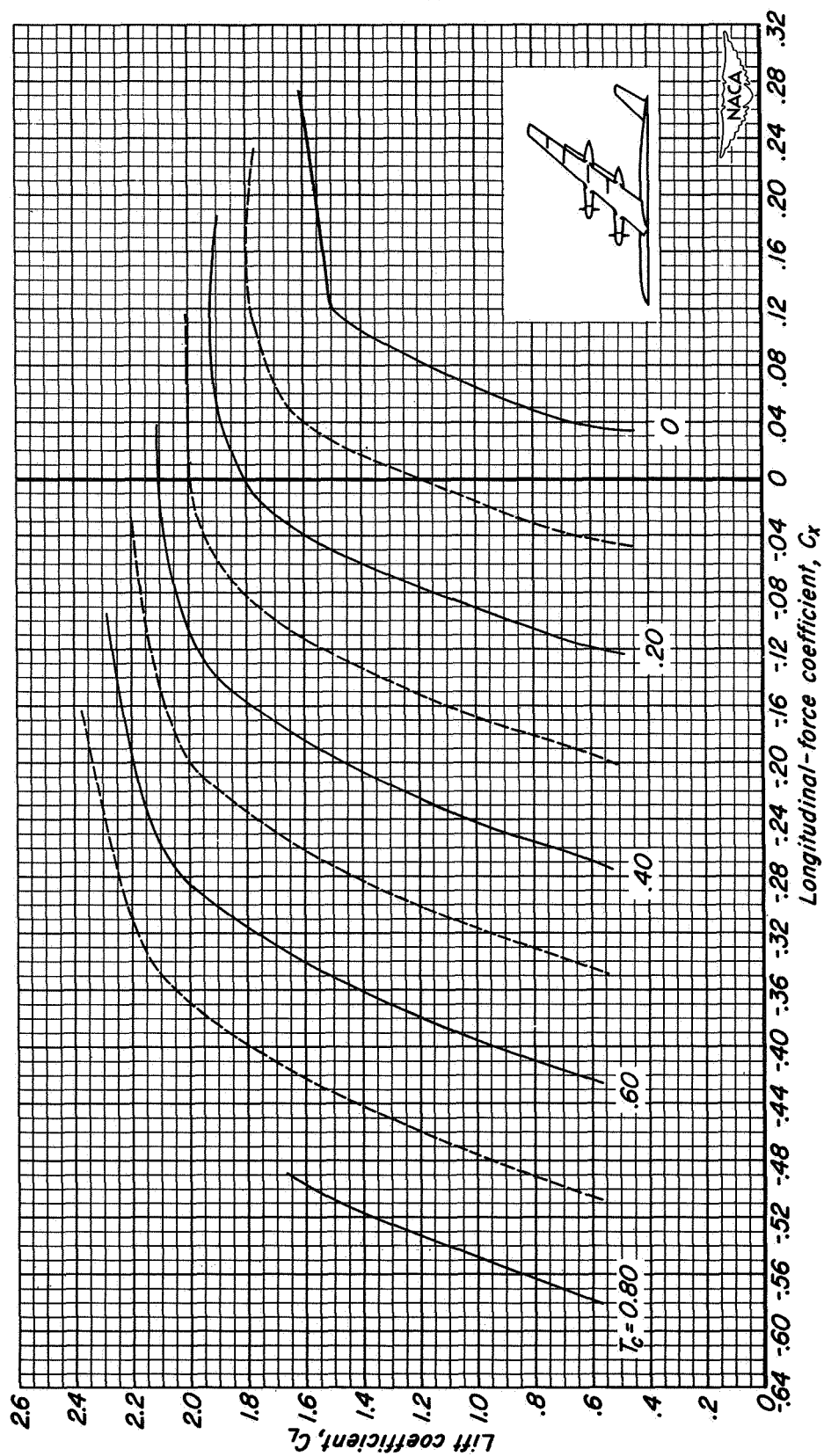
(b) C_L vs C_x

Figure 37.- Concluded.



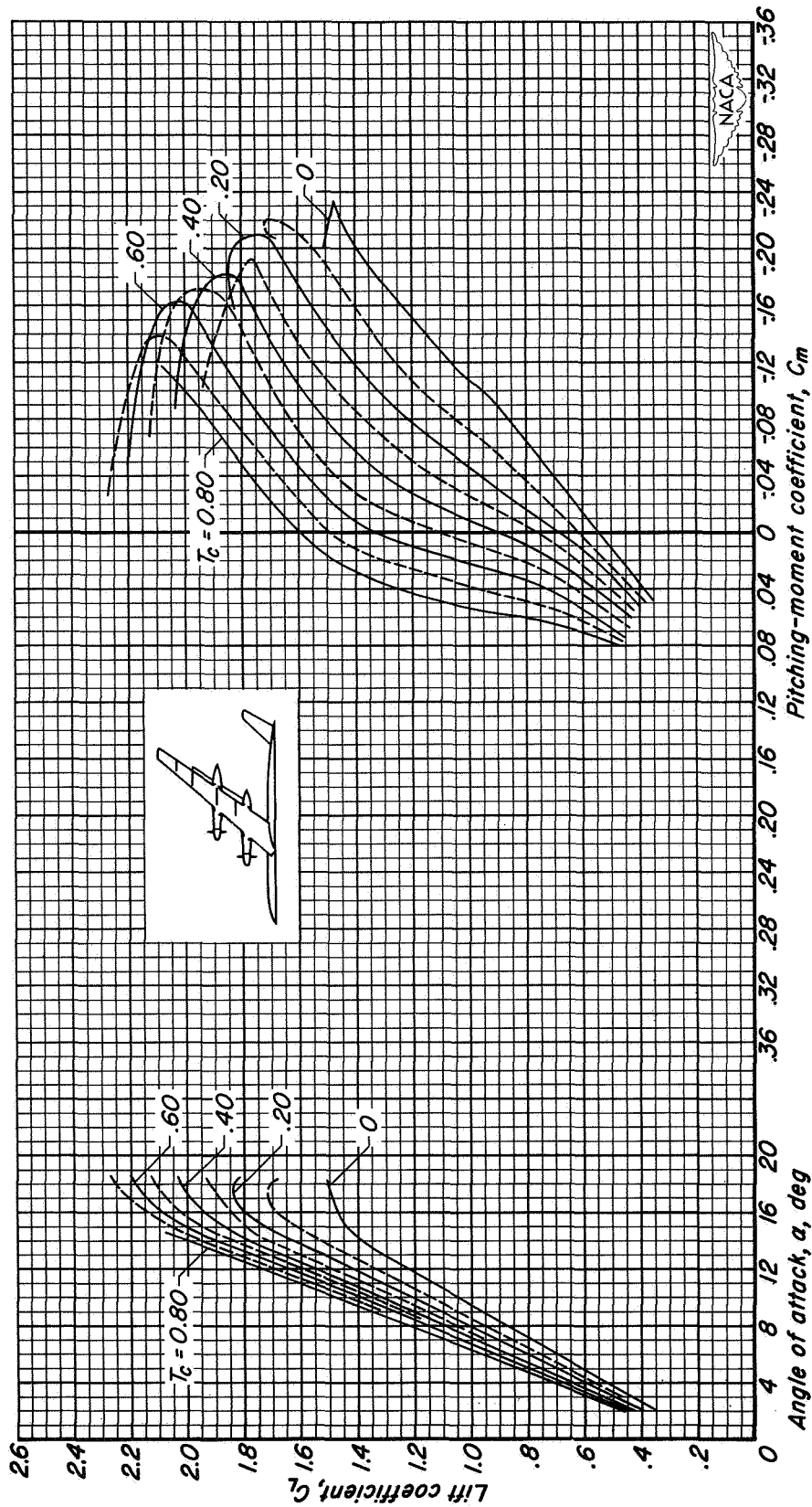
(a) C_L vs α and C_m

Figure 38.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; outboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 260^\circ$; $i_t = 0^\circ$.



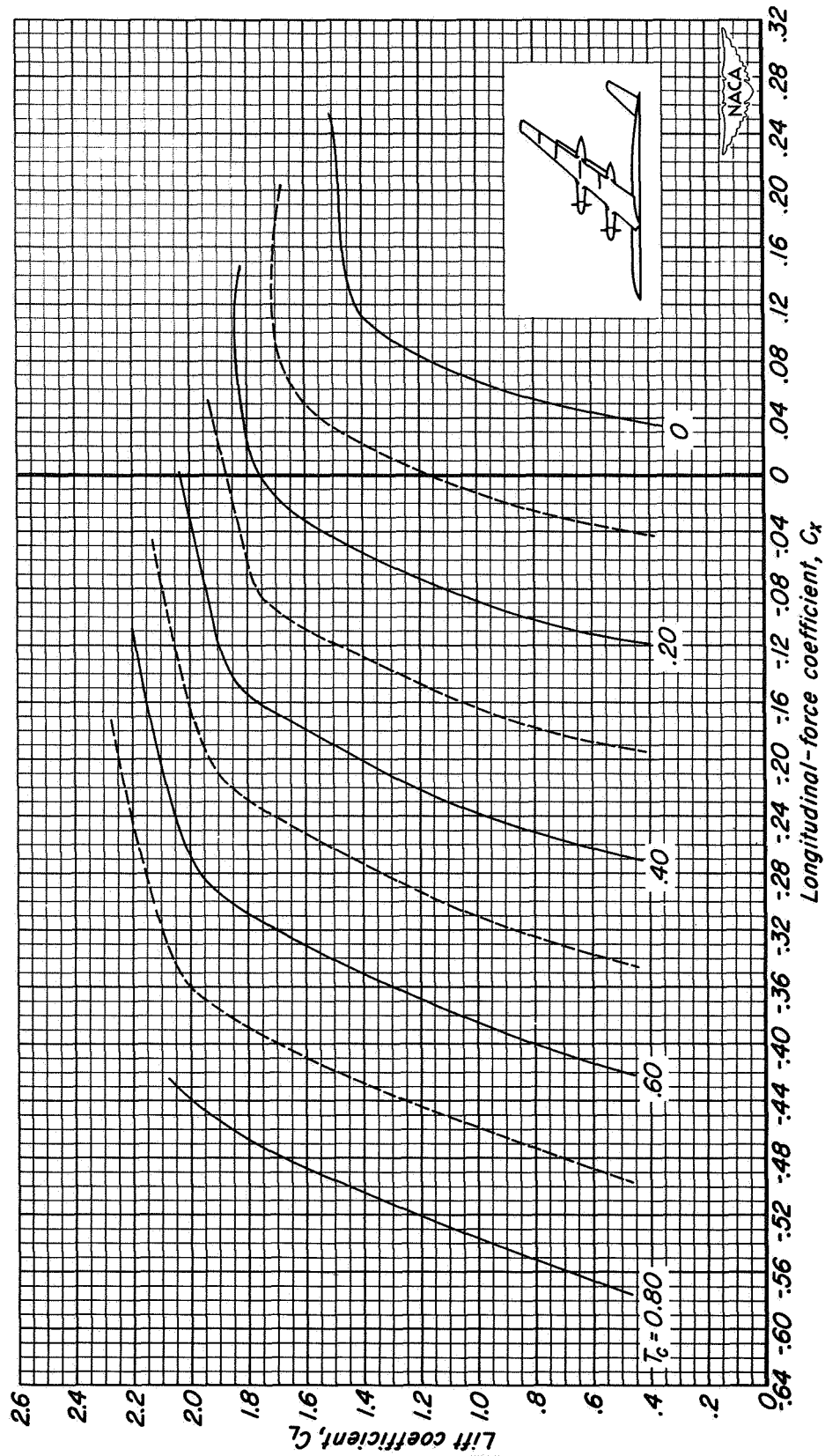
(b) C_L vs C_x

Figure 38.- Concluded.

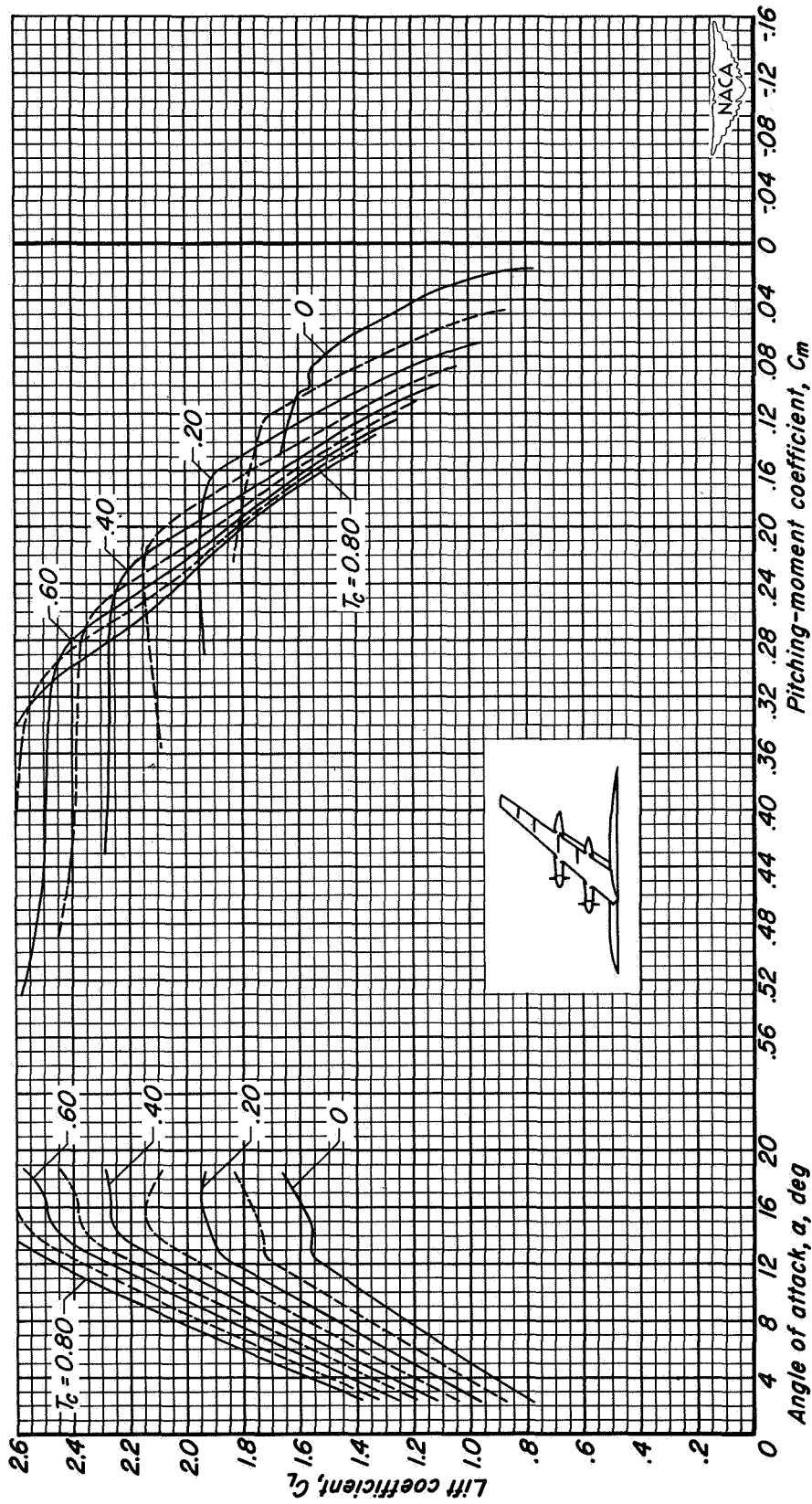


(a) C_L vs α and C_m

Figure 39.- The longitudinal characteristics of the model. Tail height = $0.10 b/2$; outboard flaps deflected 30° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$; $i_t = -8^\circ$.



(b) C_L vs C_x
Figure 39.- Concluded.



(a) C_L vs α and C_m

Figure 40.- The longitudinal characteristics of the model. Tail removed; inboard flaps deflected 60° ; $M = 0.082$; $R = 4,000,000$; $\beta = 26^\circ$.

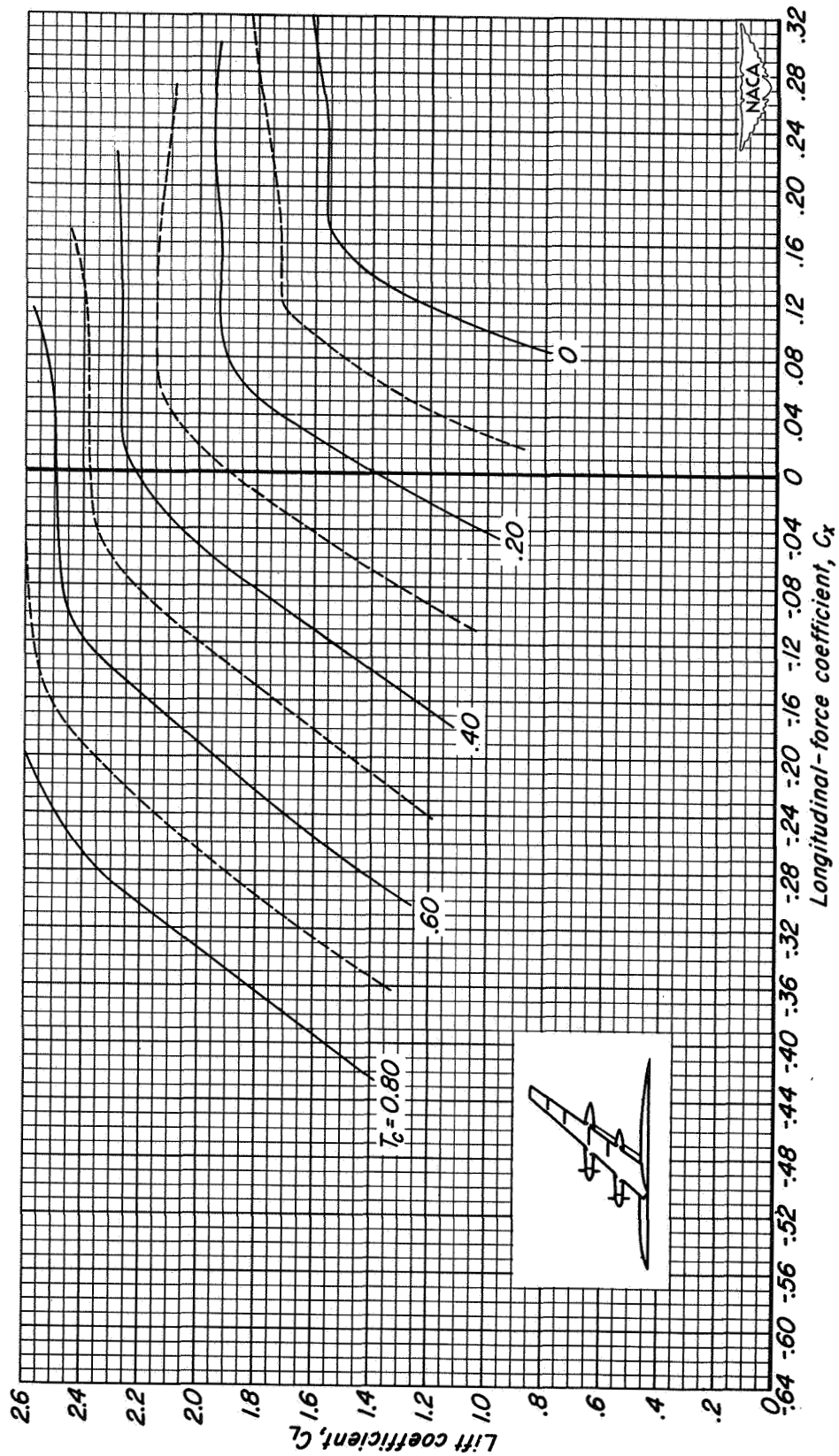
(b) C_L vs C_x

Figure 40.- Concluded.